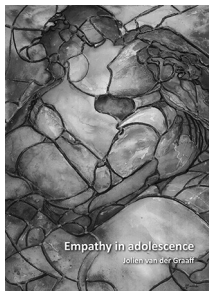


## Proefschriftsamenvattingen



*Empathy in adolescence*  
University of Utrecht, 2014

Empathy, the ability to understand and to share another's emotional state, is seen as a fundamental social skill that underlies various capabilities and behaviours. Empathy may, for instance, foster positive social behaviour and inhibit harmful behaviour towards others. Adolescence is an important period for empathy development. Several cognitive and relational changes can be expected to impact adolescents' abilities or tendencies to take others' perspectives and to experience feelings of concern. Moreover, as adolescents' bodies mature, gender-specific socialisation pressures strengthen, resulting in an increased adherence to gender stereotypical behaviour. Whereas girls are encouraged to show emotional and caring behaviour, boys are encouraged to inhibit these kinds of behaviour. This way, boys and girls may diverge in their tendency to empathise with others as they move through adolescence. However, there is still much unclear about gender differences in adolescents' empathy. First, although females are consistently found to report higher empathy than do males, evidence for this finding is almost exclusively based on studies using self-report measures of trait empathy. Therefore, we do not know whether this gender difference reflects an actual difference in boys' and girls' *ability* to be empathic or rather reflects a difference in their *motivation to describe* themselves as empathic. Second, since there is relatively little longitudinal research on empathy in adolescence, gender differences in developmental patterns have not yet been thoroughly addressed.

In the first study of this dissertation (Van der Graaff et al., *submitted manu-*

script), we assessed adolescents' motor, affective, and cognitive empathy, using self-reported as well as observed measures, to investigate the relations between different dimensions of empathy. Moreover, the multi-measure approach of this study provided a unique opportunity to get an answer to the question whether the general assumption that females are more empathic than males holds beyond self-reported trait empathy. In the second study (Van der Graaff et al., 2014), we longitudinally investigated boys' and girls' development of empathy between age 13 and 18, and we examined the role of pubertal status in this development.

## Study 1: The multi-dimensional nature of empathy

Empathy is generally seen as a multi-dimensional construct, involving motor, affective, and cognitive processes. *Affective empathy* refers to an emotional response that stems from another's emotional state and is congruent with that state. It may turn into empathic concern, consisting of feelings of sorrow or concern for the other. *Cognitive empathy* refers to the perspective taking processes that an individual uses to imagine the other's situation in order to understand what the other is feeling. *Motor empathy* refers to the automatic mimicking of others' facial expressions, and may also comprise facial motor responses induced by vicarious emotional experiences. Besides the distinction between cognitive, affective, and motor processes that play a part in empathy, it is important to distinguish between empathy as a stable dispositional characteristic or an individual's general tendency to empathise with others (i.e. *trait empathy*) and empathy as it occurs in specific situations (i.e. *state empathy*). Although these processes are assumed to be interrelated, the multi-method study described in this dissertation was the first to comprehensively investigate the relations between all these processes.

The study revealed that adolescents who responded with stronger motor empathy to film clips portraying happiness and sadness (as measured with use of facial electromyography), consistently reported higher affective state empathy. Adolescents who showed stronger motor empathy, also showed higher levels of cognitive state empathy, indirectly via affective state empathy. Remarkably, we did not find strong support for close links between measures of trait and state empathy. Whereas trait empathy was consistently but modestly related to state empathy with sadness, for state empathy with happiness few trait-state associations were found. Interestingly, we did not find strong support for a close link between trait empathy and motor empathy.

The comprehensive method of this study allowed us to test for sex differences in mean levels of empathy across self-reported, observational, trait, and state

measures. In line with the commonly held gender stereotype that girls are more empathic than boys, we indeed found a large sex difference on self-reported trait empathy (in particular in the affective component). However, the study revealed only small sex differences on self-reported state measures, and majorly absent differences on the facial EMG measures of motor empathy. This finding yielded support for the notion that the more respondents are aware of what is being assessed (i.e. empathy), the more they attempt to respond in line with prevailing gender stereotypes. This also suggests that the well-established finding of girls scoring higher on empathy than boys, reflects a difference in *motivation* to report empathy rather than a difference in the *capacity* to show empathy.

## Study 2: Empathy development in adolescence

In the second study, we investigated mean level changes in perspective taking and empathic concern from age 13 to age 18, and we examined whether pubertal status was related to this development. In this six-wave longitudinal study, we found an incline in perspective taking for both boys and girls. Interestingly, the developmental pattern was strikingly different between boys and girls. Girls showed a steeper increase in perspective taking across adolescence than did boys. Moreover, whereas girls' perspective taking particularly increased between age 13 and 15, for boys it did not increase until age 15, and even showed a slight dip before that age. Although theorists have proposed that adolescents' growing perspective taking abilities also facilitate the development of empathic concern, we did not find an increase in empathic concern across adolescence. Whereas girls' empathic concern remained stable, boys' empathic concern declined until mid-adolescence, with a rebound to the initial level thereafter. Pubertal processes played a small role in this dip; boys who were physically more mature reported lower levels of empathic concern than did their physically less mature peers at ages 15 and 16. In sum, this study showed that perspective taking increased during adolescence, which may be a result of cognitive maturation. The finding that boys' empathic concern showed a dip, which was related to pubertal status, suggests that gender-specific socialisation pressures play a role; boys who are physically more mature likely adhere more strongly to stereotypical masculine behaviour, and might therefore be more inclined to inhibit empathic concern.

## Bibliography

- Van der Graaff, J., Branje, S., De Wied, M., Hawk, S., Van Lier, P., & Meeus, W. (2014). Perspective taking and empathic concern in adolescence: Gender differences in developmental changes. *Developmental Psychology* 50, 881-888.
- Van der Graaff, J., De Wied, M., Van Boxtel, A., Van Lier, P., Koot, H., Meeus, W., & Branje, S. Motor, Affective and cognitive empathy in adolescence: Interrelations between facial EMG and self-reported trait and state measures. *Manuscript submitted for publication.*

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