Journal of Experimental Child Psychology 143 (2016) 34–47

Contents lists available at ScienceDirect

Journal of Experimental Child Psychology

journal homepage: www.elsevier.com/locate/jecp

Preschoolers understand the normativity of cooperatively structured competition

Marco F. H. Schmidt [a,b,*], Susanne Hardecker [b], Michael Tomasello [b]

[a] International Junior Research Group Developmental Origins of Human Normativity, Department of Psychology, LMU Munich, 80802 Munich, Germany
[b] Department of Developmental and Comparative Psychology, Max Planck Institute for Evolutionary Anthropology, 04103 Leipzig, Germany

ARTICLE INFO

Article history:
Received 15 June 2015
Revised 23 October 2015
Available online 23 November 2015

Keywords:
Competitive games
Constitutive rules
Normativity
Cooperation
Competition
Rationality

ABSTRACT

Human institutional practices often involve competition within a cooperative structure of mutually accepted rules. In a competitive game, for instance, we not only expect adherence to the rules of the game but also expect an opponent who tries to win and, thus, follows a rational game-playing strategy. We had 3- and 5-year-olds ($N = 48$) play for a prize against an opponent (a puppet) who played either rationally (trying to win) or irrationally (helping the children to win) while either following or breaking the rules of the game. Both age groups performed costly protest against an opponent who followed the rules but played irrationally by helping the children to win. When facing a rule-breaking opponent, 3-year-olds protested only the rule breaches of an irrational opponent but not irrational play. Five-year-olds also protested the rule breaches of a rational opponent, but in contrast to the 3-year-olds, they protested irrational behavior even in the context of rule breaches. Moreover, many children, in particular 3-year-olds, refrained from protesting. These findings suggest that 5-year-olds, but not 3-year-olds, fully understand the dual-level normative structure of cooperatively regulated competition.

* Corresponding author at: International Junior Research Group Developmental Origins of Human Normativity, Department of Psychology, LMU Munich, 80802 Munich, Germany.
E-mail address: marco.schmidt@psy.lmu.de (M.F.H. Schmidt).

http://dx.doi.org/10.1016/j.jecp.2015.10.014
0022-0965/

Introduction

Human social and institutional life is peculiar in that it is capable of reconciling two *prima facie* opposing categories of social interaction: cooperation and competition (Searle, 1995). More specifically, many human activities presuppose a mutually accepted cooperative structure but go beyond this fundament and put a competitive layer (i.e., opposing goals) on top. For instance, even violent activities, such as dueling, may be governed by a set of agreed-on rules; economic activities, such as companies competing for customers, are subject to legal rules; and in competitive games, such as chess, opponents cooperatively adhere to a set of rules that make the very activity of "chess" possible in the first place—often referred to as *constitutive rules* and based on the formula "X counts as Y in context C" (Rawls, 1955; Searle, 1969, 1995).

Jointly intending to compete in a cooperatively regulated way

Competitive game playing, however, is not exhaustively described by merely referring to the constitutive rules of the game such as that in chess pawns may capture "en passant" and that some state of affairs counts as winning in a particular game (Raz, 1999; Rescorla, 2007; Roversi, 2010; Schwyzer, 1969). For example, someone could "play" chess but with the intent to throw the game—a "trifler" as coined by Suits (1978/2005). All of the trifler's moves could be in perfect accord with the constitutive rules, but this would not be an act of competitive game playing because it violates the common ground assumption that individuals who enter a competitive game play rationally and try to win. This psychological attitude—or even value—of trying to win is constitutive of competitive game playing as a cultural practice (Raz, 1999; Rescorla, 2007; Roversi, 2010; Schwyzer, 1969; Suits, 1978/2005). Thus, the goal of winning is not a constitutive rule but rather an inherent part of voluntarily engaging in competitive games in the first place. This does not mean that players need to care strongly about winning and be disappointed about losing; rather, it means that playing with the goal to win makes it possible for "us" to play the game at all. More generally, the constitutive rules of a competitive game are not ends in themselves but only means to the end of engaging in competition (i.e., having opposing goals) within a set of mutually accepted rules.

The normative dimension of the goal of winning becomes more obvious when we leave aside the common assumption that people typically try to win and take the perspective of two individuals who intend to play a competitive game. When entering a competitive game (a shared intentional activity à la Bratman, 1992, 2014; Searle, 1995), we form the *joint intention to compete in a cooperatively regulated way*. Thus, we expect that our game partner—who voluntarily entered the cooperatively structured social practice—not only adheres to constitutive rules but also pursues his or her goal to win and, therefore, employs a rational game-playing strategy as opposed to intending to lose. Otherwise, "we" would not actually be playing a competitive game and the trifler would ruin the game. Obviously, throwing a game would be irrational—not only when there is the prospect of winning a prize but also, more fundamentally, if one voluntarily entered a competitive game because it would mean not to have the goal (to win) that is integral to the very activity in which one intends to engage.

Children's understanding of the normative aspects of competitive games

Most basically, understanding that "we compete in a cooperatively regulated way" in a competitive game requires skills for collective intentionality (Searle, 1995), enabling participants not only to jointly accept the constitutive rules but also to jointly intend to compete. But what do young children understand about these two aspects of competitive games (i.e., constitutive rules and rational game playing)?

Regarding constitutive rules, recent research has mostly investigated cooperative games (i.e., goals are aligned, not opposed, and each player performs the same action) and found that children understand and care about the normative dimension of such games by around 3 years of age (for reviews, see Rakoczy & Schmidt, 2013; Schmidt & Rakoczy, 2016; Schmidt & Tomasello, 2012). That is, children protest and criticize third parties who do not perform simple game acts in prescribed ways