'When Theories Meet': Approaching Intergroup Contact from a Self-Determination Theory Perspective

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ABSTRACT

Intergroup contact theory provides a useful framework for effective interventions to improve intergroup relationship; however, disharmony between various social groups perseveres. These contact processes, their successes and failures, remain relatively unexplored from the perspective of human motivation to engage in intergroup contact. To address this, we integrate self-determination theory as a well-established theory of human motivation with existing evidence of intergroup contact research. Further, we explore the role of individual well-being in intergroup contact, which, though a prominent outcome of self-determined behavior according to motivational theories, is rarely addressed in the contact literature. Finally, this review discusses how the theoretical integration can serve to categorize and interpret findings from contact research. We deduce implications for future intergroup contact research which may reveal further mechanisms of contact and guide conceptualizing more effective intergroup contact interventions.

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Pioneered by Gordon Allport (1954), intergroup contact literature offers a rich theory of what happens 'when groups meet' (Pettigrew & Tropp, 2011: I). Starting with the proposition that – under the right conditions – intergroup contact can reduce intergroup bias (Allport, 1954; Brown & Hewstone, 2005; Pettigrew & Tropp, 2006; for an overview of current contact literature, see Paolini et al., 2021), research has branched out into a multitude of directions to detail the effects of intergroup contact and their underlying mechanisms. Due to this broad scope of intergroup contact theory, the rich and diverse literature at times appears unstructured and difficult to reconcile into one cohesive theoretical framework. Out of this and other reasons, the theory's potential has not yet been fully realized: High levels of conflict and (self-selected) segregation between different groups as well as all manners of discrimination persevere, while ever more opportunities for intergroup contact arise through expanding globalization and diversity accompanied by increased mobility and media reach (e.g., Turner & Cameron, 2016). Overall, this emphasizes the necessity of further understanding intergroup contact as a theory and an intervention.

One relatively understudied aspect that could aid in this is the motivational underpinning of intergroup contact (e.g., Paolini et al., 2018). Although initial research has yielded motivational predictors of intergroup contact, it remains open which factors exactly shape an individual's motivation to engage in intergroup contact, and which motivational processes influence the contact experience and its outcomes. After giving a brief introduction to intergroup contact theory, we present how to employ self-determination theory (SDT; e.g., Deci & Ryan, 1985, 2000; Ryan & Deci, 2017, 2019) as a prominent theory of human motivation to organize intergroup contact theory. We address its mechanisms and nomenclature – especially with regards to questions of human motivation – and inform interventions to bolster intergroup harmony, and explore the concept of self-determined intergroup contact.

INTERGROUP CONTACT THEORY

In their momentous meta-analysis – which cemented the positive effect of intergroup contact on outgroup attitudes – Pettigrew and Tropp (2006) defined intergroup contact as an 'actual face-to-face interaction between members of clearly defined groups'. Considering subsequent literature and adapting this definition to account for contact opportunities other than face-to-face contact (e.g., Imperato et al., 2021), our working definition extends intergroup contact to include any interaction between members of clearly defined groups. This allows for a number of considerations to capture the complexity of intergroup contact, such as the valence of contact (e.g., Barlow et al., 2012; Paolini et al., 2010), direct versus indirect contact (e.g., White et al., 2021), modes of contact (e.g., Harwood, 2021), the degree of intimacy of contact (e.g., Marinucci et al., 2021), or the degree to which engaging in contact is volitional (e.g., Bagçi et al., 2020; Husnu & Paolini, 2019).

Alongside these facets of contact, research has examined predictors – such as feelings of intergroup threat and anxiety (e.g., Bettencourt et al., 2019), self-expansion motives (Wright et al., 2002), and perspective taking (Wang et al., 2014) – as well as outcomes of contact – such as improved intergroup attitudes (Pettigrew & Tropp, 2006), receptivity to cross-group friendships (Paterson et al., 2019), and changes in personality traits (e.g., Turner et al., 2020). Importantly, these examples illustrate only a fraction of all available contact literature. What is not yet definitively answered, however, is the question of motivation for intergroup contact – how and why people are motivated to engage in intergroup contact.

Since there is an abundancy of theories on human motivation, research on motivation to engage in intergroup contact is also fragmented. Some recent publications have considered motivational predictors of contact such as self-expansion motivation (e.g., Wright et al., 2002), confidence in contact (Turner & Cameron, 2016), and the perceived contact motivation of the ingroup (Stathi et al., 2020). A multilevel framework by Ron and colleagues (2017) proposes factors that promote and hinder willingness to engage in intergroup contact on a micro (i.e., individual), meso (i.e., group), and a macrolevel (i.e., societal). Similarly, Paolini and colleagues (2018) have reviewed motivational underpinnings of contact approach and avoidance behaviour, by applying a learning theory perspective, and concluded that stress reactions and a lack of cognitive capabilities may play a role, especially in contact avoidance. They also adopt a micro-, meso-, and macrolevel view on contact approach predictors.

Both of these reviews integrate the abundance of previously disjointed research of motivation to engage in contact, but point out that research still needs to examine how contact is taken up (or not) in natural settings rather than in the laboratory. Furthermore, Paolini and colleagues (2018) stress the necessity of not only identifying precisely which personal, situational, and social factors motivate individuals to engage in contact, but also of systematizing this research at the same time to bridge the gap between research and practice.

What is more, contact approach and avoidance are not the only steps in the intergroup contact process for which findings on motivation are scarce. Questions such as 'Which roles do the initial motivation and its qualities play in shaping a contact experience and consequently, a person's perception of the other group?' and 'Can contact specifically satisfy motivational needs and, through

this, encourage future contact?' remain open. Aiming to address all these issues, we propose a theoretical integration including the entire intergroup contact process: Motivational processes that lead individuals (not) to engage in contact, the motivational mechanisms that impact contact experiences, as well as motivational effects on the outcomes of contact, including subsequent contact experiences.

REACHING BEYOND THE FIELD: THE INTERPLAY OF MOTIVATION AND INTERGROUP CONTACT

In its broadest terms, motivation aims at explaining the link between an individual's goals, values, and beliefs and their actions (Eccles & Wigfield, 2002). In order to shed more light on the underlying mechanisms of contact and to help develop more efficacious contact interventions, we propose to draw from the field of motivation psychology – an approach that others have taken before us: Migacheva and Tropp (2012), for example, drew from goal orientation frameworks (e.g., Grant & Dweck, 2003) to explain comfort and interest in intergroup contact. Similarly, Tropp (2021) based her deductions concerning attachment and contact on Maslow's hierarchy of needs (1943). Especially relevant to this article is the work of Bagçi and colleagues (2020), who used components of SDT to synthesize their exploration of contact volition as a predictor of outgroup attitudes. We will return to this below.

In the spirit of these works and drawing from the ever-expanding literature on intergroup contact, as well as in an attempt to answer Paolini and colleagues' (2018) call to consider motivational aspects of contact approach, we aim to take a first, comprehensive step towards bringing together contact theory and SDT in consideration of the entire contact process.

There are several reasons why SDT is an ideal candidate for this endeavour: As one of the most prominent and enduring frameworks of motivation, it has rich and diverse support by systematic reviews and meta-analyses (e.g., Deci et al., 1999; Cerasoli et al., 2014), it has been validated cross-culturally (for an overview, see Ryan & Deci, 2019), and it offers a set of structures we can use to organize contact theory. This is because there is substantial conceptual overlap between the two fields, as presented below, and initial works in this direction have already been published. For example, Legault and Amiot (2014) integrate SDT and intergroup processes, outlining how autonomy, a key component of SDT, can lead to a range of positive outcomes for intergroup relations, such as heightened social tolerance. A final benefit of SDT is its long-standing tradition of intervention research which may provide guidance on how to reduce intergroup conflict. In sum, these reasons constitute a compelling

argument for exploring intergroup contact from a self-determination viewpoint.

Thus, the goals of this review are a) to give an overview of theoretical intersections of intergroup contact and SDT, b) to explain how exploring these intersections may benefit us to improve intergroup contact theory and interventions, and c) to synthesize open questions for future contact (motivation) research. We will also d) discuss potential problems and the merits of applying other theories of human motivation. Overall, we wish to encourage (yes, to motivate) researchers to look to the field of motivational theories in order to supplement what is a growing body of research on driving factors of intergroup contact so that we can more confidently implement the theory into real-life settings more effectively. As a first step, we will give a brief introduction to SDT.

SELF-DETERMINATION THEORY (SDT)

SDT is a theory of human motivation that comprehensively describes mechanisms underlying behaviour across different domains, spanning from academic learning to health behaviours. Originally rooted in examinations of when, how, and why people experience intrinsic motivation (Deci, 1975; Deci & Ryan, 1980), SDT has developed in a 'brick-by-brick' fashion (Ryan & Deci, 2019: 111). Researchers to date continue to expand its foundation, applicability, and cross-cultural validity. For an overview of SDT's core concepts, that is, its 'mini-theories' (Ryan & Deci, 2019: 112), see Table 1.

In its most basic terms, SDT proposes that behaviour is self-determined if 'one's actions are relatively autonomous, freely chosen, and fully endorsed by the person rather than coerced or pressured by external forces or internal expectations' (Knee et al., 2013: 307), that is, it is intrinsically motivated. Intrinsic motivation reflects the idea that behaviour that is driven internally, for example, by curiosity, interest, and enjoyment, bolsters well-being (vs. extrinsic motivation; the idea that behaviour that is driven through external pressures can be detrimental to well-being). Well-being is a central outcome of self-determined behaviour (e.g., Ryan & Deci, 2019). Arguably, self-determination is desirable in intergroup contact as will become apparent below.

In the following, we will integrate empirical research from both fields to clarify how SDT can help us to categorize and understand intergroup contact phenomena and to deduce concrete research approaches. To aid this process, we propose an SDT-framework of intergroup contact (see Figure 1), which will structure the following integration. We will address each of the elements in the framework before discussing self-determined contact in practice. The review will then conclude by reflecting on the integration process and prospects for future research.

THEORY	REFERENCE	PREMISE
Cognitive Evaluation Theory	Deci & Ryan (1980)	• intrinsic motivation as the internal driver of human behaviour • intrinsic motivation is the interest in and engagement with the inner and outer world of the individual • no need for external incentives to prompt behaviour • intrinsic motivation fosters well-being and enjoyment
Organismic Integration Theory	Ryan et al. (1985)	• extrinsic motivation as the external driver of human behaviour • four forms of extrinsic motivation ranging from the most controlled through incentives and reward contingencies (external regulation) to the most autonomous extrinsic motivation that is not yet intrinsic (integrated regulation) • the more autonomous the motivation, the more well-being and enjoyment is experienced
Goal Content Theory	Kasser & Ryan (1993, 1996)	• goals and aspirations can also be intrinsic or extrinsic • extrinsic life goals: obtaining rewards, esteem, and approval (Ryan et al., 2013) • intrinsic life goals: internal achievements, e.g., realizing one's potential (Ryan et al., 2013)
Basic Psychological Needs Theory	Ryan (1995)	• individuals experience the psychological need for autonomy, competence, and relatedness • fulfilment cross-culturally leads to intrinsic motivation and well-being (Reeve et al., 2018)
Relationship Motivation Theory	Deci & Ryan (2014); Ryan & Deci (2017)	• satisfaction of the needs for autonomy and relatedness are necessary for high-quality, sustainable relationships
Causality Orientations Theory	Deci & Ryan (1985)	• describes differential motivation of individuals in social situations • orientations as chronic focus on distinct situational features • autonomy orientation: towards interests and opportunities for growth • controlled orientation: towards reward contingencies and powerful others • impersonal orientation: towards performing adequately and avoiding failure

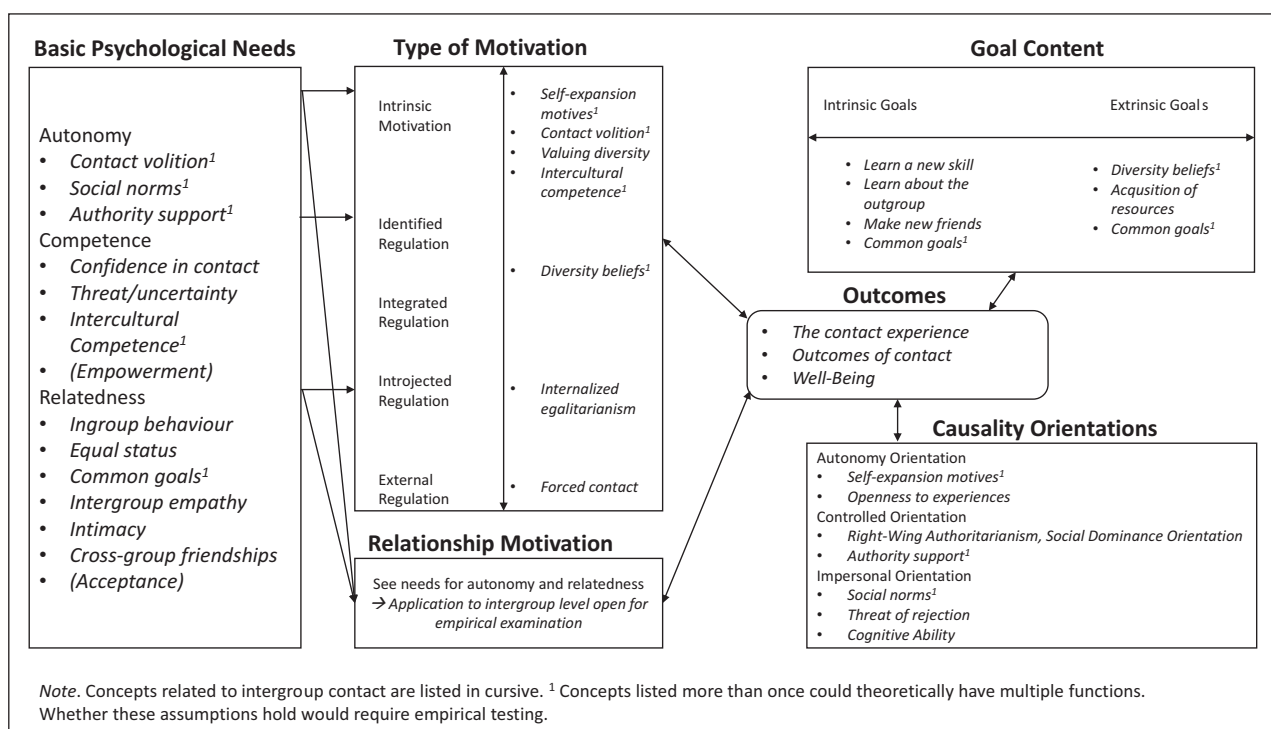**Table 1** Overview of SDT's Mini-Theories.

Figure 1 Using an SDT framework to categorize intergroup contact research.

THEORY INTEGRATION
BASIC PSYCHOLOGICAL NEEDS

A substantial section of SDT research is concerned with basic psychological needs (Deci & Ryan, 2014; Ryan, 1995; Ryan & Deci, 2017). Basic Psychological Needs Theory proposes that human beings have the needs for autonomy (i.e., being able to freely choose one's actions), competence (i.e., experiencing mastery in one's actions), and relatedness (i.e., feeling connected to relevant others). The fulfilment or frustration of these needs impacts the type of motivation individuals experience as well as interpersonal relationships. Although these

needs' relative importance and the degree to which they are satisfied in different social roles can vary between cultures (Church et al., 2013), they consistently emerge and are conducive to intrinsic motivation and well-being cross-culturally (e.g., Church et al. 2013; Reeve et al., 2018).

Following the general logic of SDT, we assume that need-fulfilment plays an important role in contact situations: Intergroup contact that satisfies (any or all of) the three needs may be more attractive than contact that does not, and may intrinsically motivate an individual to initiate contact or to profit from future contact opportunities. The experience of this contact will also go along with higher subjective well-being as these needs are fulfilled. Indeed, we can find concepts from intergroup contact literature to support this line of arguments.

Needs in Intergroup Contact Theory

Firstly, relevant autonomy-related concepts from contact research are reflected in societal processes, such as relevant norms (e.g., Kauff et al., 2021) and authority support (Allport, 1954). Both have been shown to predict contact willingness and shape contact (e.g., Ron et al., 2017). We propose that the underlying psychological mechanism for these differences in contact willingness and experience are individuals' satisfaction of their need for autonomy: If an individual can experience autonomy in intergroup contact, such as by choosing and shaping contact situations, contact should occur at higher rates and with more positive outcomes.

This could be mediated by, for example, improved attitudes and signalling that intergroup contact will not be punished by the ingroup (Cialdini et al., 1991). In this case, the norms do not act as external pressures on the individual, but rather as supportive agents on pre-existing inclinations. On the other hand, norms and authorities that restrict contact – that is, that act as a suppressant of feelings of autonomy – lead to less frequent and less effective contact for individuals who are open to intergroup contact and willing to engage in it (or potentially already do).

If, however, an individual is inclined to avoid contact in the first place, these effects may be reversed. Norms that endorse and encourage contact reduce autonomy, as they are experienced as an effort to control the individual. This could have detrimental effects both to the individuals' motivation and the outcomes of contact. Reversely, norms and authorities that restrict contact would enhance such an individual's feelings of being autonomous: They may freely avoid contact without having to fear ingroup punishment. In other words, we propose an interaction effect between a person's initial degree of intrinsic motivation to engage in contact and the societal norms regarding contact to determine the perception of autonomy satisfaction: Contact-endorsing norms will promote autonomy satisfaction for individuals already inclined to engage in contact, but will have the opposite effect on individuals that want to avoid contact. The reverse should then be true for contact-restricting norms. We thus propose to delve deeper into the interplay of norms, perceived autonomy and intergroup contact in future research.

Beyond societal processes, the individual-level concept of contact volition (e.g., Bagçi et al., 2020) may be especially relevant for contact experiences that satisfy the need for autonomy. We will discuss this predictor below as it is also closely related to the type of motivation that drives individuals to engage in contact.

Secondly, the fact that competence has been examined in previous contact research suggests that this need, too, has several functions within the contact process. For example, experiencing confidence in contact, or contact self-efficacy (Turner & Cameron, 2016), can predict contact and even lead to more positive outgroup attitudes and willingness to engage in future contact (Mazziotta et al., 2011) as well as high-quality intergroup friendships (Bagçi et al., 2019), which goes hand in hand with the need for relatedness. In turn, threat and uncertainty – potentially resulting from a perceived lack of competence – can lead to contact avoidance (Paolini et al., 2016). In a similar vein, another concept using the same label, is intercultural competence, 'the ability to communicate effectively in cross-cultural situations and to relate appropriately in a variety of cultural contexts' (Bennett & Bennett, 2004). This skill is acquired by engaging in contact and can lead to increased subsequent contact approach as well as reduced negative contact (e.g., Meleady et al., 2020), as it is closely related to intrinsic motivation: It is part of an autonomous engagement with the outgroup and future contact is not externally incentivized. This indicates that the need for competence is not only relevant in contact approach behaviour, but that competence and contact experiences may impact each other bidirectionally.

Thirdly, the need for relatedness applies to a range of findings and constructs from intergroup contact literature. For instance, behaviour, attitudes, and support of the ingroup can influence contact approach behaviour (e.g., Christ et al., 2014). Possibly, ingroup-supported contact can lead to feelings of relatedness with the ingroup, whereas ingroup norms condemning contact would mean that the contact itself detracts from ingroup relatedness. But it is not just ingroup relatedness that comes into play, we also find indications of outgroup relatedness as an important aspect of contact: Two of Allport's (1954) contact conditions, equal status and common goals, suggest that some degree of initial relatedness might be a precondition for optimal contact. Similarly, intergroup empathy can be both an outcome of contact (Pettigrew & Tropp, 2008) and a mediator of contact effects (e.g., Capozza et al., 2010). Ron and

colleagues (2017) review in depth individuals' willingness to engage in contact that focuses on commonalities, as this type of contact can directly satisfy the needs for relatedness and acceptance. However, they also point out that the strength of this predictor may vary for advantaged versus disadvantaged group members, as it may uphold social inequalities by obscuring them. The question how to motivate advantaged group members for contact without focusing on these commonalities to avoid potential harm to disadvantaged group members remains. Basic psychological needs theory may provide answers to this question, for example, by instead satisfying the needs for competence and or autonomy.

The potential multifunctionality of relatedness in contact is also reflected in a prominent quality of intergroup contact: Contact intimacy, which can shape current and subsequent contact experiences (e.g., Marinucci et al., 2021). It can foster cross-group friendships, which are an effective form of intergroup contact and especially beneficial for outgroup attitudes (e.g., Davies et al., 2011). These improved attitudes can, in turn, lead to more and better cross-group friendships (Binder et al., 2009), buffer against negative contact (e.g., Graf et al., 2018), and mediate the positive relationship between contact volition and outgroup attitudes (Bagçi et al., 2020). This is directly in line with SDT's proposition that fulfilment of needs and intrinsic motivation are related (Ryan, 1995).

Hässler and colleagues (2021) examined how need satisfaction impact effects of intergroup contact, specifically, the support for social change movements (Hässler et al., 2021). The psychological needs discussed here were empowerment and acceptance, based on the needs-based model of reconciliation between groups (Nadler & Shnabel, 2015). Experiencing empowering or accepting contact leads to higher support of social change movements for members of the advantaged group, and empowering contact had the same effect for members of the disadvantaged group. Although the needs investigated here are based on another theory and bear different labels, we can find clear similarities to those of SDT: The need for empowerment is directly derived from a social perception dimension labelled competence (e.g., Fiske et al., 2002), and shares conceptual overlap with SDT's proposed need for competence. On the other hand, acceptance, such as through forgiveness (Nadler & Shnabel, 2015), is based on warmth (e.g., Fiske et al., 2002) and echoes relatedness. Thus, we find more evidence that basic psychological needs, or more precisely, need-fulfilling contact experiences, play an important role in intergroup contact and its effects. At the same time, these studies imply that the relative importance of the needs may vary for different social groups, not only in relation to their culture (e.g., Church et al., 2013), but also as a function of their position in the society they live in, that is, based on whether the group is advantaged or disadvantaged/a majority or minority group (see also Ron et al., 2017).

To further examine the theoretical impact of the needs in contact and to test how they may vary for different groups, future research needs to examine where and how exactly autonomy, competence, and relatedness influence the contact process. We can hypothesize that need-fulfilling contact should be more intrinsically motivated and lead to more intrinsic motivation, and thus promote positive experiences and outcomes of intergroup contact as well as well-being. In other words, need-fulfilling contact should be self-determined. On the other hand, if needs remain unfulfilled and a lack of self-determination is experienced, people may react by exhibiting harmful and defensive behaviour (Deci & Ryan, 2000), which may lead to discrimination and prejudice (Legault & Amiot, 2014). Importantly, if these needs turn out to be shaping agents of contact, we may derive specific implications for contact interventions. Furthermore, basic psychological needs also play a role in two of SDT's other core concepts. We will now discuss relationship motivation in intergroup contact before turning to another central aspect of the theory: Type of (contact) motivation.

RELATIONSHIP MOTIVATION

As Figure 1 illustrates, basic psychological needs can directly impact interpersonal relationships. Relationship Motivation Theory proposes that autonomy and relatedness need to be fulfilled in order to achieve high-quality, sustainable relationships (Deci & Ryan, 2014; Ryan & Deci, 2017). Thus, one could argue that fulfilment of these needs in intergroup contact situations may foster intimacy and intergroup friendships (Bagçi et al., 2020), which may be especially relevant in adolescence where cross-group friendships tend to be less stable (Turner & Cameron, 2016) and less frequent (Wölfer & Hewstone, 2018). Contact interventions could counteract this tendency by specifically enhancing need-supporting contact. Beyond this, we suggest that autonomy and relatedness are important for intergroup (as well as interpersonal) relationships, as we have already demonstrated the relevance of these needs in intergroup contact in general. However, this has yet to be tested.

QUALITY OF MOTIVATION

Beyond psychological needs, SDT describes qualitatively different experiences of motivation on a motivational continuum based on the degree to which the motivation is autonomous (vs. controlled). Cognitive Evaluation Theory (Deci & Ryan, 1980), as one of the earliest mini-theories, poses intrinsic motivation as the internal driver of human behaviour and the most autonomous and sustainable type of motivation. Intrinsic motivation stems from an interest in and an engagement with the inner and outer world of the individual, it can be

supported by need-fulfilment, and it requires no external incentives to prompt behaviour. Intrinsically motivated individuals experience well-being and enjoyment in their actions.

Organismic Integration Theory (Ryan et al., 1985), on the other hand, encompasses four qualities of extrinsic motivation, that is, the external driver of human behaviour stemming from, for example, incentives or pressure from relevant others (e.g., Ryan & Deci, 2019). These four qualities also vary in the degree to which the actions are controlled. In general, the rule of 'the more autonomously motivated a behaviour, the more sustainable it is and the more it fosters well-being' applies here as well.

At the least autonomous/most controlled level, *external regulation* describes behaviour that is entirely motivated by external pressure, rewards, or coercion (Ryan & Deci, 2000). A little more autonomous is *introjected regulation*, which drives behaviour through internalized pressure such as perfectionism (Soenens et al., 2005) which could manifest in intergroup perspectives such as internalized egalitarianism. *Identified* and *integrated regulation*, as the two least controlled types of extrinsic motivation, label instances in which an individual might not enjoy a behaviour or take inherent interest in it, but sees a certain value in it nonetheless. In identified regulation, the person can identify with the value and the behaviour, whereas in integrated regulation, they are part of the person's self-concept.

Relevance in Intergroup Contact

Arguably, intrinsic motivation is a desirable driver of intergroup contact. If an intrinsically motivated individual takes up contact with an outgroup member, that is, because they are interested in that outgroup member, it would likely foster contact enjoyment and well-being within the contact situation, which likely has positive effects on potential outcomes of contact. Conversely, we assume that the less autonomously motivated contact is, the less people enjoy this contact and the less well-being they experience in the contact situation. Indeed, previous research found that more autonomous types of motivation are more effective in reducing prejudice (Legault & Amiot, 2014). As intergroup contact is one means of doing so (e.g., Pettigrew & Tropp, 2006), this would imply that more autonomous forms of contact result in stronger positive outcomes of contact. These are not merely theoretical assumptions, but are reflected in the parallels we can already find between the two literatures.

Similarly, self-expansion motives (e.g., Wright et al., 2002) are a closely related concept to intrinsic motivation. Self-expansion motives refer to an individuals' general desire to acquire knowledge, perspectives, and skills. Intergroup contact occurs more often if it provides opportunities to fulfil this need. Contact experiences prompted by self-expansion motives are perceived very positively and conducive for building intimacy (Paolini et al., 2006), and generate a sense of self-growth and self-efficacy (Dys-Steenbergen et al., 2016). The driving factors behind self-expansion motives, such as acquiring perspectives, align with the interest in the outer world which is part of intrinsic motivation. What is more, the effects of self-expansion-driven contact and intrinsically motivated actions are equivalent. We may conclude that intergroup contact theory has already begun examining the effects and seeing the benefits of intrinsically motivated contact experiences.

This also applies to contact volition (e.g., Bagçi et al., 2020; Husnu & Paolini, 2019), that is, the wilful seeking of intergroup contact (as opposed to coincidental or forced contact) as a second predictor from contact literature which can be categorized in terms of the SDT-proposed motivation continuum. Early research suggests that contact volition plays an important role in the efficacy of contact (e.g., Pettigrew, 1998). In several studies, Bagçi and colleagues (2020) found that volitional contact – when compared to purely situational one – was experienced as more positive, more intimate, and less negative as well as associated with more positive outcomes. They also point out that volition is not necessary for intergroup contact to have positive outcomes, but acts as a facilitator. Looking at this through an SDT lens and expanding Bagçi and colleagues' introduction of SDT into the concept of contact volition (2020), we propose that it is analogous to the degree of autonomy for motivation/self-determined contact behaviour. Any quality (intrinsic, but also extrinsic forms) of motivation will lead to the prompted behaviour, but the more autonomous qualities are the ones most freely chosen and the ones with the most positive outcomes. In other words, the degree of contact volition may reflect the quality of motivation from external regulation to purely intrinsic motivation in a contact situation.

There is one caveat to this assumption: Some research suggests that less volitional contact can result in greater improvements in outgroup attitudes than freely chosen contact (Hodson, 2008; Pettigrew & Tropp, 2006). These effects were especially significant for individuals exhibiting a high Social Dominance Orientation (SDO; Hodson, 2008; Sidanius & Pratto, 1999). However, it may well be possible that these effects were not higher because non-volitional contact is more effective, but simply because in highly prejudiced individuals – which can be assumed for individuals high in SDO – there is more potential for attitude improvement and thus the effects are nominally higher than those of volitional contact in less prejudiced individuals (Turner et al., 2020). Additionally, it is questionable whether findings on forced contact would support any of the other positive outcomes of volitional contact/intrinsic motivation, such as higher well-being. Overall, it stands to reason that the

degree of contact volition reflects the type of motivation for initiating contact.

Assuming the concepts we explored here are equivalent and do reflect the continuum of motivation as proposed by SDT, we can not only re-structure and consolidate contact research, but also validate both theories' universality assumptions through future research. We can also borrow from SDT's rich history of intervention-focused research (e.g., Deci, 1972) to specifically target motivation in contact interventions and promote intrinsic (or at least more autonomous forms of extrinsic) motivation for contact approach, aiming for self-determined intergroup contact with all its positive effects. Moreover, we can approach new research questions in intergroup contact such as: 'Can differences in the degree of autonomy of extrinsically motivated contact explain findings of forced contact effects?' For this, an empirical test of the theoretical equivalence is indispensable.

GOAL CONTENT

Goal Content Theory (GCT; Kasser & Ryan, 1993, 1996) proposes that goals can be intrinsic or extrinsic in a similar fashion to motivation. Individuals pursuing intrinsic goals focus on internal achievements such as realizing their potential, while individuals pursuing extrinsic goals focus on obtaining rewards, esteem, and approval (Ryan et al., 2013). Importantly, individuals with a higher focus on extrinsic aspirations tend to care less about interpersonal relationships, community, and growth (Grouzet et al., 2005) and tend to experience less well-being (Ryan & Deci, 2019). A contrasting effect has been found for intrinsic goals, which means that following these propositions, goals pursued in intergroup contact should be intrinsic in nature in order to ensure more positive outcomes.

Here, too, we can utilize these concepts to categorize and interpret findings from contact literature. For example, self-expansion motives may predict that contact intentions are stronger when contact can help achieve goals such as learning a new skill (Migacheva & Tropp, 2012), learning about the outgroup (Ron & Maoz, 2013), making new friends (Turner et al., 2014) or acquiring symbolic or material resources (Turner et al., 2020). Most of these goals clearly fall into the category of intrinsic goals, but there is also one that contradicts GCT – the acquisition of resources (Turner et al., 2020). According to GCT, this falls into the category of extrinsic goals and should thus have less positive effects, whereas the literature suggests that this goal has similar positive effects to other goals of self-expansion.

In a similar vein, diversity beliefs (e.g., Van Knippenberg & Haslam, 2003) reflect the claims of GCT. Defined as 'the beliefs individuals hold about how group composition affects work group functioning' (Van Dick et al., 2008: 1467), they contain an individual's conviction on whether

diversity is instrumental in reaching certain goals. As such, diversity – and thus intergroup contact – is a means to an end: working more efficiently and fruitfully. Now, GCT would suggest that engaging in contact motivated by diversity beliefs would contain rather extrinsic goals and thus be associated with less well-being and less interest in relationships and community, which may lead to fewer positive or even more negative contact effects. Indeed, there is evidence that contact is especially beneficial for individuals who believe that there is little to gain from diversity (Adesokan et al., 2011) compared to those who believe it can be instrumentalized. We cannot say for certain whether this is due to the nature of extrinsic goals since we do not know which goals – if any – are pursued by individuals who do not believe in diversity. Therefore, the difference in contact effects may be due to the difference in baseline negative outgroup attitudes, which could have been larger for those not believing in the value of diversity (Adesokan et al., 2011) and thus yield higher contact effects (e.g., Turner et al., 2020).

For another consideration, we reach back to Allport's contact conditions (1954), which propose the concept of common goals of the involved groups as a necessity for contact to have positive effects. While the necessity for this condition has been disproven, there is evidence that it can promote the positive effects of contact and thus remains relevant (Pettigrew & Tropp, 2006). For example, the shared societal goal of harmonious coexistence (Ron et al., 2017) acts as a predictor of intergroup contact. This being a community-focused goal, we argue that it is intrinsic and would foster well-being in the contact experience. It remains to be distinguished if all common goals are intrinsic in nature – which is likely given that shared goals can bolster the satisfaction of the need for relatedness (Sailer et al., 2013) – or whether they differ on this dimension, and if so, whether a common goal would need to be intrinsic in order to qualify as an optimal contact condition. In any case, GCT suggests that goals need to be intrinsic in order for contact to have more positive outcomes and SDT literature can help us foster intrinsic goals similarly to more autonomous motivation.

CAUSALITY ORIENTATIONS

A last potentially influential aspect of SDT are causality orientations, which are described in Causality Orientations Theory (Deci & Ryan, 1985). These orientations are chronic activations of a certain type of motive and are regarded as personality traits, that is, they describe how individuals are differentially motivated under similar circumstances. Individuals with a high autonomy orientation focus on situational features that are connected with their interests and opportunities for growth and act according to these. A high controlled orientation comes with a focus on reward contingencies and powerful others, and a high impersonal orientation leans towards performing adequately and avoiding failure.

Causality orientations can influence interactions and relationship building. For example, Hodgins and colleagues (1996) found that a high autonomy orientation and a low controlled orientation lead to more honesty and disclosure, and more positive affect in an interaction. Other studies found that individuals with higher autonomy orientation were less defensive and deceptive when addressing their own mistakes (e.g., Hodgins & Liebeskind, 2003). These findings could be fruitful avenues for exploration in contact and point towards interventions that find primes for autonomy orientation or aim to minimize controlled orientations in intergroup settings.

In and of themselves, causality orientations offer the least overlap with contact research to date, but we can find parallels, especially with regards to the motive the orientations correspond with. For instance, a high autonomy orientation could be the result of and/or result in self-expansion motives and lead to more fruitful contact experiences, which is supported by the fact that autonomy orientation can predict more positive and less negative effects in relationship settings (Knee et al., 2002). There is also research stating that the Big Five personality trait of openness to experience (e.g., Costa & McCrae, 1995) is a predictor of contact approach (e.g., Stürmer et al., 2013), a trait which could include opportunities for growth as part of autonomy orientation.

On the other side, a high controlled orientation may cause individuals to avoid any contact situation that does not yield a tangible, external reward or one where authority support is missing. The traits of Right-Wing Authoritarianism (Altemeyer, 1981) and SDO (Sidanius & Pratto, 1999), both concerned with social hierarchies, have also been linked to intergroup contact (see e.g., Turner et al., 2020) and may relate to a controlled orientation. Similarly, we could argue that a high impersonal orientation might either prompt an individual to seek out contact when the relevant social norm is salient (see e.g., Kauff et al., 2021) or avoid it when there is the threat of being rejected by ingroup members (e.g., Crocker & Garcia, 2006). As an impersonal orientation is also concerned with avoiding failure, we could relate it to the contact predictor of cognitive ability (for a summary, see Kauff et al., 2021). A lower cognitive ability leads to reduced contact approach perhaps in part due to a fear of failure.

Overall, we argue that causality orientations are likely to influence contact approach and avoidance behaviour and may influence its effects as well. Sorting findings from the contact literature does not prove to be as intuitive as the other mini-theories and the orientations need to be thoroughly explored in an intergroup contact setting to build and confirm more confident hypotheses.

OUTCOMES

The Contact Experience and Outcomes of Contact

While discussing many of SDT's connections with the contact literature, we have already touched several outcomes of contact and subsequent contact experiences where applicable. We have established that steps in the contact process can be characterized in SDT terms with the fulfilment of basic psychological needs as one of the central points. A need-fulfilling contact experience as described above may foster well-being and bolster positive outcomes of contact such as the reduction of negative outgroup attitudes (e.g., Pettigrew & Tropp, 2006). Furthermore, need-fulfilling contact may create an intrinsic motivation to engage in future contact through, for example, a heightened confidence in contact (Turner & Cameron, 2016) or feelings of intimacy (e.g., Marinucci et al., 2021). On the other hand, if a contact situation is need-thwarting or has been engaged in in the pursuit of an extrinsic goal, it may be experienced as particularly negative and thus attitudes may change negatively and engagement in future contact is hampered.

Well-Being

Well-being as one of the central outcomes of self-determined behaviour has been addressed repeatedly in this review, but it is not a prominent concept in intergroup contact literature. Work on affective aspects of contact often includes negative emotions such as anxiety, their impact on contact approach behaviour, and the reduction of such emotions through contact (e.g., Devine et al., 1996; Bettencourt et al., 2019). Also, physical stress reactions and a lack of cognitive capabilities are associated with contact avoidance (Paolini et al., 2018). On the other hand, Migacheva and colleagues (2011) found that comfort and interest in contact can help reduce these negative states. Therefore, well-being may very well be important at all stages of intergroup contact, but especially concerning the more detrimental effects it can have, such as anxiety, threat perceptions, and physiological stress responses (e.g., Stephan & Stephan, 1985).

Well-being has a number of relations with other desirable factors (see Diener & Ryan, 2009) such as improved health and fewer physical symptoms (Roysamb et al., 2003). It can foster more intimate and supportive relationships (Diener & Biswas-Diener, 2008). In the case of intergroup friendships, this is highly efficacious in improving intergroup attitudes (e.g., Davies et al., 2011) and self-perpetuating in that these improved attitudes can lead to more and higher quality cross-group friendships (Binder et al., 2009). Furthermore, individuals who experience high well-being are more likely to act pro-socially and altruistically, tend to have more trusting and cooperative attitudes as well as confidence in the

government and support for democracy (Diener & Tov, 2007; Tov & Diener, 2009) – aspects that reflect Allport's contact conditions (1954). Crucially, high well-being tends to lead to reduced intolerance for immigrants and racial groups (Diener & Ryan, 2009). It is then not far-fetched to propose that an intergroup contact experience that is self-determined can have amplified positive effects: Both from the contact itself and from the well-being that is generated through self-determination. For this, intrinsic motivation and a fulfilment of basic psychological needs is conducive.

SELF-DETERMINED CONTACT IN PRACTICE

More than providing a theoretical approach to understanding intergroup contact, SDT can supplement intervention development. This is especially important given that intergroup conflicts persevere and, at times, seem to increase. Indeed, SDT literature already offers interventions that foster need-fulfilment and address its other components in order to bolster self-determination. For example, Legault and colleagues (2011) used brochures to test whether autonomy support – which can, for example, enhance perceived volition and reduce perceived control (Legault & Amiot, 2014) – impacted prejudice reduction. In an autonomy supporting condition, prejudice was significantly reduced, whereas in a condition that exerted control, prejudice increased. The authors also found these effects for implicit biases by inducing participants to either agree with autonomous or controlled reasons for reducing prejudice. Similar designs could be applied to intergroup contact.

Additionally, interventions already applied in SDT research may be combined with those from the intergroup contact literature. An example would be an intervention aimed at supporting the need for relatedness in contact which could be done by emphasizing similarities of the interaction partners, a technique that has been shown to improve cross-group relationships (e.g., Turner & Cameron, 2016). Future research needs to address the exact nature of combined interventions and the extent to which they are effective in reducing intergroup bias.

CRITICAL REFLECTIONS

SDT and intergroup contact, although developed separately, fit together neatly, which is in line with SDT's proposed universality. Figure 1 shows a simplified and hypothetical overview in which we summarize how selected concepts from intergroup contact may be interpreted in SDT terms. This overview is neither comprehensive nor yet validated, but succinctly shows the ideas this review means to express, that is, how SDT can be useful to structure and explain existing findings from intergroup contact as well as fill gaps in the literature.

Beyond providing a system to categorize motivational antecedents of contact, SDT can help us structure the entire contact process from the first (non)initiation all the way to its outcomes and how those may impact future contact experiences. The theory can directly classify the types of behaviours within the contact situation that impact its valence, i.e., need-supporting and -thwarting behaviours (e.g., Sheldon & Filak, 2008). It further suggests how these behaviours influence motivation and well-being in and after the contact situation as well as why some contact situations are experienced as negative/positive and how outgroup attitudes are subsequently impacted. Still, this review is but a starting point in bringing together the two literatures and there are several important points to reflect upon for this and future attempts:

Firstly, there are areas where the theories' overlap is small and an integration not yet fruitful. Findings on contact in constrained settings (e.g., Pettigrew & Tropp, 2006) challenge SDT's assumption of 'the more autonomously motivated a behaviour, the better the outcomes and the more sustainable it is'. Furthermore, findings regarding the distinction between advantaged and disadvantaged groups and their needs in contact are not all encompassing. In the current review, we generalized the conclusions to both groups. Regarding the nature of goals in contact, there is very little we can deduce, as goals are not typically studied in intergroup contact and for one of SDT's mini theories (Causality Orientations Theory), the hypotheses we propose are not as soundly supported by the intergroup contact literature as for the other mini theories. These gaps require particular attention in any empirical work examining this integration.

Secondly, the current review sought comprehensiveness without compromising brevity and precision. However, since intergroup contact theory and SDT have evolved from decades of research and offer an abundance of constructs, we had to select factors and risked overlooking information. In this vein, the present integration serves as a starting point and inspiration for future efforts of merging the two fields.

Thirdly, another important aspect of this integration which warrants closer attention is the scope of focus of the two theories: SDT is, generally speaking, a theory that takes a(n) (inter)personal view on motivation, it explains behavioural tendencies of the individual, whereas intergroup contact focuses on the relations between social groups. Several questions arise from this distinction, for example: 'Is individual variation in motivation enough to trigger collective processes? Do motivational effects such as the impact of goal content as proposed by SDT apply to social groups as well as individuals?' Cross-

cultural findings on variation in need-fulfilment and well-being suggest that we may interpret at least some of SDT's concepts on a group or even societal level. However, these questions need to be addressed further in future research and may not only offer important insights into the mechanisms of contact, but could help to expand SDT as well.

Fourthly, SDT may be better suited to explain why intergroup contact is avoided and ingroup contact preferred. As Paolini and colleagues (2018) rightfully point out, contact avoidance does not necessarily reflect outgroup-related processes, it may result from seeking the ingroup. While the authors offered helpful explanations for this, we may draw additional insight from SDT: Ingroup contact may be more intrinsically motivated because it is more need-fulfilling, especially regarding the need for relatedness. Testing this would help identify qualities intergroup contact needs for people to engage in.

Last, but not least, SDT is not the only prominent theory of motivation proposed in the literature. We have chosen SDT for the reasons outlined above and because we believe it is a fruitful endeavour to apply concepts of the theory to contact paradigms in more detail and to design studies based on SDT in order to enhance contact research and interventions. Nonetheless, cases can be made in favour of other theories of motivation. For instance, Attribution Theory (Graham, 1991; Weiner, 1985) might tell us more about how previous contact experiences lead to future ones. Expectancy-Value Theories (e.g., Eccles & Wigfield, 2002) may tell us how the estimation of success in and personal value of contact may lead (non)engagement in contact. In this vein, this review seeks to provide inspiration to think outside the box of intergroup contact literature and dive into other theoretical fields for a more diverse, flexible, and perhaps universally valid theory of intergroup contact.

CONCLUSION

We have established that intergroup contact research has yielded numerous factors at work when groups come into contact, factors which at time lack organization and cohesion. Additionally, underpinning motivational mechanisms of contact remain relatively understudied. To address this, we proposed a theoretical approach by applying a well-validated theory of human motivation – Self-Determination Theory (e.g., Deci & Ryan, 1985, 2000) – to intergroup contact and identified their connections. The overall integration provides many insights into psychological mechanisms underlying intergroup contact, and although specific empirical support is needed to broaden our understanding of the theories' intersections, we maintain that SDT can supplement intergroup contact

literature in places where uncertainties persist and can bring together branches of intergroup contact research that may seem disconnected in order to guide future scientific and intervention-focused efforts.

COMPETING INTERESTS

The authors have no competing interests to declare.

AUTHOR CONTRIBUTIONS

Johanna Böttcher: Conceptualization, Investigation, Visualization, Writing – Original draft.

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