University of Groningen

Deindividuation

Spears, Russell

Published in:
The Oxford Handbook of Social Influence

DOI:
[10.1093/oxfordhb/9780199859870.013.25](https://doi.org/10.1093/oxfordhb/9780199859870.013.25)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2017

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Spears, R. (2017). Deindividuation. In S. G. Harkins, K. D. Williams, & J. Burger (Eds.), *The Oxford Handbook of Social Influence* (pp. 279-297). Oxford University Press.
<https://doi.org/10.1093/oxfordhb/9780199859870.013.25>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Deindividuation

Russell Spears

The Oxford Handbook of Social Influence

Edited by Stephen G. Harkins, Kipling D. Williams, and Jerry Burger

Print Publication Date: Sep 2017 Subject: Psychology, Social Psychology

Online Publication Date: Jul 2016 DOI: 10.1093/oxfordhb/9780199859870.013.25

Abstract and Keywords

Deindividuation is among the classic phenomena researched by the early pioneers of social psychology. Building on the theorizing of LeBon (1895/1985), deindividuation provided an explanation for aggression in the crowd, a concern as relevant today as it was in the previous two centuries. The theory predicts that behavior becomes more antinormative and aggressive under conditions of anonymity, associated with group immersion, and that this occurs because of reduced self-awareness and deregulated behavior. However, close scrutiny of the deindividuation literature provides scant evidence for the deindividuation process. Revisiting the primary literature reveals at best mixed support for the original claims and many contradictions, often belied by accounts in secondary sources and textbooks. Reformulation and refinement of the theory has not helped. I present a reinterpretation, in terms of social influence by group norms, in line with social identity principles, supported by experimental evidence and a meta-analysis of the original deindividuation literature.

Keywords: deindividuation, aggression, anonymity, identifiability, self-awareness, accountability, social identity, SIDE model

The concept of deindividuation is one of the most celebrated, compelling but perhaps also most controversial concepts that emerged from the birth of modern social psychology as an empirical science in the postwar era. In what has been called the crowd century (Reicher, 2011), a key political concern that emerged after the defeat of fascism, superseded by the reality of communism in the cold war, was the psychology of the mass and the power of the collective, epitomized by the crowd. Here a driving interest to understand the process of social influence, central to this volume, was not only to find ways to encourage housewives to accept cheaper cuts of meat, but to understand group processes that had the potential to change the world order through riot and revolution. Deindividuation, as an attempt to explain social disorder in the mass, emerged as a concept that seemed to capture this urgency and concern, and although its roots in the seminal publication by Festinger, Pepitone, and Newcomb (1952) did not acknowledge this, it had its foundation in the writings of Le Bon in the preceding century.

Le Bon's *The Crowd* (1895/1995) was a response to a very similar "crisis of control" which arose during the social upheaval in the wake of the industrial revolution, leading to fears of revolution of a more political kind (Reicher, 1982, 1987, 2011). Indeed the fear of collective power as a threat to both authority and individual freedom is a recurring theme that framed the era from the French revolution to the Paris commune that preoccupied Le Bon, but with no less resonance in the aftermath of World War II. It was against this backdrop that Festinger and others sought an explanation for the apparent power of the crowd and found compelling ideas and answers in Le Bon's writings. One needs to realize that this was an era when social psychology was still in its infancy, and few established texts, still fewer based on solid empirical science, existed. (p. 280) Indeed, it was the task of this postwar generation of social psychologists to write these texts. Although Le Bon's ideas had little scientific credence (even in their day), this was not seen as a problem as the ideas predated the science of social psychology. Thus, these early theorists saw it as their mission to provide this credence, by testing these ideas in the laboratory, rather than simply observing events in the field. Lewin's (1951) credo that "there is nothing so practical as a good theory" seemed to justify this approach, but in retrospect, theories can sometimes be wrong and begin to live a life of their own, even under empirical scrutiny. I jump ahead, however, and it is the purpose of this chapter to give an account of the deindividuation concept and its literature, which has perhaps both a historical and a scientific perspective.

With this in mind, I deal with this literature in the first instance and for the most part in narrative terms and generally in chronological order. It is useful to see how ideas developed but also how the construct cast a powerful influence (perhaps shadow) over several decades of ensuing research. It is also instructive to see, somewhat in historical perspective also, how deindividuation research was to some extent a child of its time. Methods suitable to testing some of the key assumptions and predictions were often not yet there or insufficiently developed to allow this test (especially in relation to measuring unconscious states). Interestingly, the literature has not been revisited as such methods have become available, but nevertheless some of the myths persist, perhaps because the ideas were so compelling. Deindividuation, as the unruly child, is still very much alive in textbooks and the popular image of the crowd. Toward the end of this narrative review I present some results from a more quantitative (meta-) analysis of the literature that evaluates some of the key ideas. However, rather than cut to the chase, it is instructive first to take the full journey and see how these ideas around deindividuation developed, and persisted, and ponder how and why they captured the scientific as well as the popular imagination.

Classic(al) Contributions—The First 25 Years of Deindividuation Research

The first study to define and research deindividuation was published in 1952 by Festinger, Pepitone, and Newcomb, in the *Journal of Abnormal and Social Psychology*, and

entitled “Some consequences of deindividuation in a group.” It had no references (and no abstract), which is perhaps not surprising given the pioneering nature of this very first study on the topic. As noted earlier, one reference that could have been included (but was not) would have acknowledged the debt to Le Bon’s *The Crowd* (1895/1995), which was clearly the source of the basic ideas. The basic premise of the paper is that being in a group allows people to be released from the restraints they feel as individuals and thus indulge their inhibitions. They suggest that crowds create a context in which submergence in the group means that people are not singled out or paid attention to, which loosens and lessens inner restraints, allowing the release of behavior that would typically be restrained. This state of affairs was defined as “deindividuation.”

Festinger et al. attempted to gain evidence for these ideas in a series of discussions among groups of four to seven Michigan psychology students. After being engaged in some “small talk” by the observer, the experimenter then read the participants the results of (bogus) research using modern psychiatric techniques that suggested that 87 percent of a representative sample of Americans “possessed a strong, deep-seated hatred of one or both parents,” with denial of such impulses a sure sign that they existed (in line with psychoanalytic thinking about denial and defense mechanisms). This last feature was added after pilot research had shown that without it participants were reluctant to admit to any such hostile feeling toward their parents.

This formed the prompt for a group discussion of participants’ personal feelings about their parents, lasting for 40 minutes. The observer later coded the comments critical of parents. The researchers took the “extent to which members of the group were unable to identify who said what during the discussion” as a measure of deindividuation. To do this, they computed the errors in identifying who said what, and subtracted from this the errors in correctly identifying statements that were made when presented with foils. This was then correlated with the frequency of expression of negative attitudes about parents as a test of the deindividuation hypothesis ($r = .22$, which became $.57$ after eliminating an outlier group!). In a second key prediction, this reduction in restraint was also positively correlated with attraction to the group ($r = .36$, albeit only $p < .1$). The authors interpreted the reduction in inner restraints in the group and attraction to the group as support for their deindividuation predictions.

Clearly there are a number of issues with methodology and interpretation in this seminal study. Perhaps a central concern is the strong directive, (p. 281) if not *demand characteristic*, to produce negative comments that were in turn interpreted as a lack of restraint. This set a pattern for much subsequent deindividuation research, which, at least in its heyday, received little comment or concern, but arguably has returned to haunt interpretation of deindividuation research (see Postmes & Spears, 1998). An alternative interpretation not considered was that people were less identifiable for their statements to the extent that they followed the group norms or demand given by the experimenter. Interestingly the excluded outlier group, which they characterized as uninterested in the task (and which included not going along with the experimental demands) showed the lowest degree of identifiability (i.e., defined as deindividuation) but highest levels of restraint in

Deindividuation

terms of negative attitudes expressed about parents. In short, these participants seemed to reject the demand to be negative about parents but showed no less deindividuation in terms of lack of identifiability.

These issues notwithstanding, this study was extremely important and influential in starting the scientific program that put Le Bonian ideas into action.

Despite the auspicious beginnings, the course of deindividuation research hardly spread like wildfire (in contrast to Festinger's other contributions to the field) with only a couple of papers in the next two decades (Cannavale, Scarr, & Pepitone, 1970; Singer, Brush, & Lublin, 1965).

Singer et al. (1965) developed the deindividuation paradigm and presented the first attempt to manipulate the identifiability factor in terms of clothing. In two studies they manipulated this by asking their women participants (sophomore students) to dress up (dress, high heels, and hose) or to turn up in old/casual clothes. They defined these conditions as high versus low identifiability, respectively. They then presented a paradigm in the guise of a concept learning task in which participants were required to read out and assess whether passages from an erotic literature text that was considered taboo (*Lady Chatterley's Lover*) fit the particular complex concept under consideration (i.e., whether or not it conformed to the definition of being pornographic). In a nontaboo control condition participant reacted to a more neutral text assessing whether or not an education was considered liberal. Singer et al. predicted and found that these women were (inter alia) more likely to use obscene language (an indicator of disinhibited deindividuation) when in less identifiable clothing. However, the prediction that participants would show more attraction to the group under the deindividuated/taboo conditions was not upheld.

An alternative interpretation of the finding here is that greater use of taboo or obscene language does not so much reflect identifiability of clothing but the norms associated with being "dressed up" (more refined and following social decorum and etiquette standards) and "dressing down," with associated norms being more relaxed and less prudish.

Perhaps the next major milestone in the deindividuation literature was the publication of Zimbardo's (Zimbardo, 1969) provocatively entitled chapter: "The human choice: Individuation, reason and order versus deindividuation, impulse and chaos." This influential and widely cited chapter truly ignited interest in deindividuation. As Zimbardo's other famous work on the Stanford Prison experiment demonstrated, he had the knack for promotion in publicizing a phenomenon (and it is noteworthy that mainstream experimental journals were not the chosen forum in either case). This chapter includes field studies showing mindless vandalism to cars, as well as laboratory experiments, as evidence for deindividuation.

Zimbardo developed a model that sought to further analyze the processes in deindividuation in terms of a sequence of input variables (e.g., anonymity, group size, arousal), inferred subjective changes (reduced self-evaluation, lowered thresholds for expressing inhibited behaviors), and output variables (e.g., impulsive irrational behaviors). The range

Deindividuation

of input variables and output behaviors in particular is quite extensive and heterogeneous (10 and 11 factors listed, respectively). Moreover, some seemed potentially inconsistent. For example, under output behaviors was listed “perceptual distortion—insensitivity to incidental stimuli ... ” (f), whereas the following item (g) refers to “Hyper responsiveness —‘contagious plasticity’ to behavior of proximal active others” (p. 253). In short, the cues to which participants might be more or less responsive is not always clear (a theme to which we shall return). Zimbardo then goes on to present two experiments examining the effects of anonymity (one of the input variables) on aggression.

In the first study with women students (coeds), anonymity was induced in half the participants by having them wear large coats and hoods, never addressing them by name, and conducting the study in the dark. In the other condition “their individuality and identifiability were emphasized throughout” (p. 262) by giving them name tags and (p. 282) emphasizing their unique reactions in the instruction (p. 264). Participants then heard a taped interview with the experimenter and a future (female) “victim,” one sweet and the other obnoxious (portrayed as conceited and prejudiced toward the Jewish students at their university). They were then provided a rationale for allocating electric shocks to the victims in order to study whether “empathy judgments differ when one is passively or actively involved with the target persons.” (Actively involved meant inducing reactions directly from the target, although this was combined with another conditioning experiment.) Ps understood that two of the four in the group would allocate the shocks with the other two serving as observers. After being seated in separate cubicles and receiving a strong test shock to show how this felt, they were shown how this apparatus worked: A light came on when they were required to shock and a green light remained on for the duration of the administered shock. They could see the victim interacting with the experimenter, and also reacting in considerable pain. All Ps were allocated to the shock condition and thought the shock was combined with the shock administered by the other group member through a common system. The main dependent variable was the duration of the shock administered. The duration of shock was twice as long in the deindividuated participants (although the frequency did not differ). Moreover, whereas the shock administered by identifiable participants was reduced for the nice victim and increased for the nasty victim over time, shocks seemed to increase for both targets over trials in the deindividuation condition.

A second study was conducted with soldiers in the Belgian army. In this study participants were seated in separate cubicles and told that the research was concerned with impression formation in which they were asked to judge strangers whom they could see (identifiable) or not (nonidentifiable). Together with the identifiability of the participants themselves, this resulted in a 2 × 2 design. Telling participants that interpersonal judgments can be biased by others helped to justify concealing the Ps’ identity, so that Ps so informed wore hoods in the deindividuated condition, whereas those in the identifiable condition just wore their military uniforms.

Deindividuation

The task was to control the duration of shock administered to an observed other in order to “judge his reaction to a condition they helped create.” Once again the main DV was the duration of the shock administered (again, other judges also delivered shocks independently so the source of shock could not be ascertained, resulting in diffusion of responsibility). The identifiability conditions contrasted with the deindividuation condition on a number of dimensions (no hoods, name tags, bright lighting), whereas nonidentifiable Ps also knew from observing-closed circuit TV that they were not identifiable as only the backs of others were visible to each other.

Unexpectedly, aggression measured by shock duration was actually *less* under both conditions of own anonymity and deindividuation (i.e., whether or not the victim was also identifiable). Moreover, shock duration increased in the identifiable conditions rather than in the nonidentifiable conditions (in contrast to the earlier experiment). Zimbardo, on the basis of reactions of some of the participants, concluded that their manipulation had not worked because the soldiers indicated that they were uncomfortable wearing the hoods and were self-conscious. Moreover, the military uniforms they were wearing and which were visible in the identifiable conditions made them indistinguishable and thus deindividuated. In other words, Zimbardo was able to reconcile these results with the theory and predictions.

Some Emerging Questions: Variability, Valence, Cues, and Norms

We have now reviewed enough early classical studies to get a good idea of early research on deindividuation and the experimental paradigms used to test these ideas. The puzzling results of Zimbardo’s second study were not an isolated problem in the deindividuation literature. In the 1970s evidence started to emerge that classical deindividuation conditions such as anonymity could sometimes lead to much more positive and prosocial behavior. In particular, a study by Gergen, Gergen, and Barton (1973) showed students put in a darkroom where nobody was identifiable engaged in altogether much more positive “touchy-feely” behavior (participants were not required to administer shocks), more akin to the T-group and love-ins that were part of the zeitgeist at the height of the Hippy era (and presumably no less so at a liberal arts college where this study was conducted). Therefore, Gergen et al. argued, in contrast to Zimbardo’s claims that deindividuation generically increases antisocial behavior, that the behavior depends on the nature of the salient cues.

Although the absence of aggression in this study in which people were free to behave could be seen as a strength, the possibility remains that aggression could be stronger under anonymity when (p. 283) the means are available and encouraged (i.e., the typical Buss aggression machine paradigm). This point is nicely addressed even more explicitly in an elegant study by Johnson and Downing (1979) in which they noticed that the hoods and overalls used by Zimbardo (and others) in his deindividuation manipulation were rather reminiscent of the attire of the Ku Klux Klan white supremacists and therefore pro-

vided implicit cues to aggression. They tested this idea by using deindividuated clothing designed to reflect these and alternative cues. The experimenter stated of the uniforms to be donned in the deindividuation condition either (a) "I'm not much of a seamstress; this thing came out looking kind of Ku Klux Klannish" or (b) "I was fortunate the hospital recovery room let me borrow these nurses' gowns to use in the study." Results showed no main effect of deindividuation (i.e., wearing of clothing to produce anonymity), but main effects of the *type* of uniforms, reflected in reduced aggression (shocks in a learning paradigm) for nurses compared to KKK-like clothing. An interaction effect also indicated reduced aggression in the nurses' uniforms but marginally more aggression in the KKK uniforms compared to individuated conditions. This study would therefore seem to confirm that it is not deindividuation qua anonymity per se that produces aggression; the nature of the cues seems to be critical.

This notion that there were positive as well as negative sides to the classical deindividuation process was a central theme of Dipboye's (1977) review of the deindividuation literature. Dipboye highlighted two sides of the deindividuation process. The idea that anonymity and group immersion free one from inhibitions leading to negative behavior was only one side; there is also an implicit sense that losing one's inhibitions could be positively liberating. However, Dipboye suggests that because deindividuation implies a loss of identity, it can also be threatening to lose one's sense of self and who you are as an individual (although it is not clear how such threat manifests itself under lack of awareness). This narrative fit also with the then current zeitgeist of self-discovery and self-actualization proposed by Maslow and others. In other words, it seems that deindividuation could be characterized as a liberating state with predominantly negative outcomes or a threatening state that prevented self-expression. In short, which direction liberation lies depends somehow on one's view of human nature and the view of the self. And as we have seen, deindividuation itself could also be associated with positive outcomes. So how can we explain this? A theory that predicts both positive and negative outcomes, especially when designed to explain the negative, could be seen as problematic.

It is also interesting to note that findings that behavior produced by deindividuating conditions was sensitive to normative cues were used to refine rather than reject deindividuation theory. One potentially plausible and parsimonious explanation for this effect is that people become more sensitive to the (local) group norms under deindividuating conditions. However, for most theories of group influence, following group norms implies a conscious process of conformity or compliance to the group whether this reflects the influence of reference groups, normative (group) influence (Deutsch & Gerard, 1955), or (albeit much later) referent informational influence (RII) in self-categorization theory (SCT; Turner, 1982, Turner et al., 1987). As we will see later, RII is a favored interpretation of social identity-based conceptualization of deindividuation findings.

The (group) norm explanation for deindividuation effects has always been problematic from a deindividuation theory perspective. This is because a central plank of the deindividuation account is that the deindividuation process should result in transgression of norms or antinormative behavior. However, the implicit conceptualization of norms and

“normative” within deindividuation theory is rather generic and rigid, associating norms with general moral values (“doing the right thing”) rather than with specific norms. In other words, according to this approach, aggression is antinormative by definition. More seriously for deindividuation theory, following norms seems to imply a conscious social process with awareness of social standards, quite the opposite of the mindless process invoking loss of self-awareness and self-regulation. The typical deindividuation theory answer to this conundrum has been to argue that people are more influenced by local *cues* (see Diener, 1980). However, it is not clear that labeling this influence by cue instead of norm solves the conceptual problems. The question simply arises of how to distinguish a situational cue from a local or specific group norm and the role of (self) awareness in this process?

It is worth briefly revisiting some of the classic studies we have considered so far to see whether a (group) normative interpretation can make sense of the earlier findings. A number of studies that used women participants may have inadvertently tapped into normative gender role behavior (p. 284) (e.g., notably women to be less aggressive), especially in the individuated conditions where personal accountability is also typically emphasized. For example, in the study by Singer, Bush, and Lublin (1965), described earlier, it is not hard to imagine that the manipulation that required them to dress up smartly (individuation conditions) conveyed stronger “ladylike” gender norms (especially in that era) than were present when they were asked to dress down.

Similarly the individuated condition in Zimbardo’s second study with Belgian soldiers found more evidence of aggression in this condition (contrary to original predictions). But this also seems to fit with a normative interpretation, insofar as aggression is quite consistent with the military role and identity salient when in uniform (which the hoods and overalls arguably only obscured and neutralized). On this interpretation, group norms can also help to make sense of the pattern found in the individuated conditions, and this is arguably problematic for the interpretation that “salient situational” cues will typically have more impact in deindividuating conditions.

Supporting this line of analysis, Carver (1974; also cited in Dipboye’s 1977 review) found that when there is a norm or standard for aggression (e.g., that shocks given by a teacher can facilitate learning), lowered self-awareness *decreased* aggression and heightened awareness *increased* it. This goes directly against the deindividuation account of aggression flowing from reduced self-awareness but fits a normative interpretation that behaving aggressively can reflect conscious and regulated goal-directed behavior. We will return to the normative theme later when we consider the social identity reinterpretation of deindividuation effects (the SIDE model). In the meantime these concerns and alternative interpretations made it all the more important to critically evaluate evidence for the deindividuation process and specifically the claim that aggression followed from reduced self-awareness. This was a key objective of the subsequent wave of deindividuation research to which we now turn.

Process Focus: Reduced Self-Awareness as the Basis for Deindividuated Aggression

By the end of the 1970s much research on deindividuation phenomena had accumulated, but the combination of mixed evidence and alternative interpretations seemed to raise as many questions as provide answers. In an influential review chapter, Diener (1980), who had conducted many field and lab experiments on deindividuation, made a concerted plea to refocus research on the proposed process involved in deindividuation, namely the absence of self-awareness and self-regulation. Integrating deindividuation theory with Duval and Wicklund's (1972) objective self-awareness theory, he argued that many of the input variables considered by Zimbardo (e.g., anonymity, group immersion) will lead people to become less aware of themselves as individuals, to direct attention outward, and to be more susceptible to influence by external cues to aggression, resulting in disinhibited behavior.

Although he acknowledged that people could be influenced by the "ad hoc" norms in the group, and thereby drew a link with the "emergent norm" account of R. H. Turner (see e.g., Turner & Killian, 1972), he argued that these are "not really norms at all" because they do not follow from internalized and morally correct personal norms (or those associated with their primary reference group) (see Diener, 1980, p. 230). In short, the basic deindividuation account that the deindividuated behavior results from lack of self-awareness, externally directed attention, and a breakdown in self-regulation was maintained.

However, despite this focus on the self-regulation process, hard evidence for this was difficult to find, and it should be acknowledged that techniques to investigate such processes, which often imply lack of awareness and unconscious or implicit processes, were not well developed at this time. Indeed, although such methods have developed dramatically since the 1980s, by then the heyday of deindividuation research had passed and has not since been revisited (perhaps for reasons that will become clearer).

If we examine some of Diener's own representative research on this topic, then once again interpretations of findings could be made in terms of equally plausible mechanisms based on conscious and even rational or norm-following behavior. One example is evident in the research using the "trick or treat" paradigm that Diener and colleagues developed in a series of field experiments (e.g., Diener, Fraser, Beaman, & Kalem, 1976). The key dependent variable in these studies was whether the children took more than one piece of candy (or stole money) when offered at the doorstep, which increased to the extent that the children were in groups, were anonymous, and where responsibility was attributed to another. However, rather than reflecting a (p. 285) deindividuated state (reduced self-awareness and self-regulation), which was nearly impossible to measure in this context, it seems equally plausible that behavior was driven by self-interest, and the (perceived) reduced likelihood of getting caught and being held accountable for such "transgressions."

Deindividuation

A series of studies by Beaman, Klentz, Diener, and Svanum (1979) aimed to provide more direct evidence for the role of the self-awareness process by placing a mirror behind the candy bowl in an attempt to manipulate “objective” self-awareness (Duval & Wicklund, 1972). The mirror manipulation indeed reduced transgression rates among those who had been individuated by giving their name and address, but not among those who were anonymous. Unfortunately, however, this finding is also consistent with the argument that people who are less likely to feel recognized and accountable will be more likely to pursue hedonic or self-interested behavior they think they can get away with. In other words, proof of the decreased accountability is not evidence of the *reduced awareness* proposed to drive the effect in the deindividuation condition.

In another equally high impact paradigm, Diener, Dineen, Endresen, Beaman, and Fraser (1975) used a context in which they manipulated aggressive norms, models, and degree of responsibility for a task, labeled elsewhere (Diener, Westford, Dineen, & Fraser, 1973; Diener, 1980) as “beat the pacifist.” Participants were instructed that they could do various things to a “role player” sitting on the floor of a dimly lit room. Various materials were provided for this purpose (paper balls for throwing, rubber bands, foam bats, plastic guns, Ping-Pong balls). Factors were manipulated that were predicted to increase aggression (an aggression norm, an aggressive role model, lowered responsibility), all of which had independent effects in the predicted direction. However, no evidence was found for the proposed mediating state of deindividuation through reduced self-awareness.

In later research, Diener further pursued the quest to find evidence for this deindividuated state (e.g., Diener, 1979; Diener, Lusk, DeFour, & Flax, 1980). Unfortunately, these studies are also clouded by questions of interpretation in relation to methodology and measures. For example, in Diener (1979) the deindividuation manipulation consisted of a wide range of group activities, any of which could be responsible for differences with the other contrast conditions (high vs. low self-awareness), and the fact that Ps were told that their data “would be treated as a group, not on an individual basis.” So once again (notwithstanding possible confounds between group and individual identity—see the SIDE model later), there is the problem that differences can be attributed to differences in individual responsibility for action, potentially reflecting the presence of a conscious accountability process in individuated conditions, rather than an unconscious disinhibition process in the deindividuated conditions (see earlier).

Moreover, the measures designed to assess such a process involved a series of self-report scales (e.g., reported self-consciousness), which are far from an ideal means of tapping into a processing involving *lack* of awareness (again this was before the era of implicit measures that would be less open to this criticism). In another series of studies Diener et al. (1980) showed that whereas a number of group factors were related to (reduced) self-consciousness in groups (e.g., group size, number of observers), behavior disinhibition was not related to this lowered self-consciousness, contrary to deindividuation predictions.

To summarize, although Diener and his associates greatly enriched the deindividuation literature and developed a number of colorful and high-impact paradigms to research deindividuation, many questions remain about the evidence and particularly the underlying process. In particular, a key concern that recurs in a number of studies, but which was arguably inherent in the deindividuation concept from the very start (i.e., Festinger et al., 1952), is the problem of reconciling a deindividuated state, premised on lack of self-awareness and reduced self regulation, with the possibility that antisocial behavior resulting from anonymity in the group could also reflect a conscious process in which group members act with the knowledge that they are not accountable and therefore cannot be held responsible for their behavior. This is particularly problematic when such behavior is hedonic or self-interested (e.g., in the trick-or-treat paradigm). But even when it is not, the behavior in question could reflect the behavioral demands of the experiment or experimenter or at least implicit norms within the situation.

In the most recent wave of deindividuation research to date, pioneered by Prentice-Dunn and Rogers (see Prentice Dunn & Rogers, 1989, for a review and model), this central problem was at least (and at last) explicitly acknowledged. These authors further pursued the agenda of previous deindividuation theorists, and particularly Diener, in trying to pin down evidence for the elusive deindividuated (p. 286) state, and, thus, the process underlying aggressive behavior in the group. However, they now recognized explicitly that there was a problem in treating deindividuation manipulations involving anonymity as implicating the deindividuation process qua reduced self-awareness. In contrast, they proposed that anonymity could lead to disinhibited behavior by a different “accountability” route in which transgressions go unpunished. However, rather than relinquishing the link to self-awareness entirely, they introduced a second type of self-awareness originally proposed by Fenigstein, Scheier, and Buss (1975), namely *public* self-awareness (or self-consciousness), to apply to this anonymity route to aggression. Public self-awareness corresponds to how you are seen by a relevant audience and thus involves a degree of conscious metacognition. This is distinct from “private” self-awareness, which is more akin to the original formulation of objective self-awareness (Duval & Wicklund, 1972) and corresponds to awareness of self. It is private self-awareness that is thus reduced in the true deindividuation route, which Prentice-Dunn and Rogers argue follows from immersion in the group and the heightened arousal and externally directed attention that this can evoke. Formulated in this way, many of the effects resulting from reduced identifiability should not be seen as reflecting a process of deindividuation (newly defined), but rather reduced accountability. Although this distinction looks useful and rescues the deindividuation concept from processes where conscious accountability may play a role, it is also a significant concession in the sense that the original conceptualization and test of deindividuation by Festinger et al. (1952), *inter alia*, would not count as deindividuation.

Although this “bracketing off” of anonymity is to some extent welcome in terms of clarifying the process, it may also be problematic to associate anonymity only with identifiability to others. As diverse theorists have noted, anonymity has different facets and different effects (see Diener, 1980). In particular, in developing the SIDE model (Reicher, Spears, & Postmes, 1995; Spears & Lea, 1994; Spears & Postmes, 2015), we have made a distinc-

tion between anonymity “of” (self) and anonymity “to” (others), and both these aspects have played a role in deindividuation theorizing. Thus, the early formulation of Festinger does not simply refer to the ability to be recognized but the possibility of being singled out in general, which includes others as well as the self. This was clearly part of their idea of submergence in the crowd—that others are difficult to distinguish (cf. the concept of “depersonalization” in self-categorization theory). We return to this issue shortly.

Meanwhile, with this conceptual clarification in place, the challenge was now on to find evidence for the deindividuation process more narrowly defined (in our review of the literature, Postmes & Spears, 1998, refer to this as the *contemporary* deindividuation account to distinguish it from the classical definition involving anonymity). However, as we shall see, unfortunately this quest suffered from some of the same problems that Diener had encountered in his program of research.

Prentice-Dunn and Rogers (1980) conducted a study in which they manipulated deindividuated versus individuation cues with aggression models (high, low, no) in a 2x3 design. The experimental procedure ostensibly combined two different experiments concerned with behavior modification and biofeedback. In the biofeedback set-up participants were instructed to administer electric shocks to a participant when his displayed heart rate fell below a certain level. Participants were seated at separate “aggression” machines, blocked from the view of others, and could choose a range of shock intensities, providing a measure of the aggression. In the deindividuated conditions, identifiability was minimized (similar to Zimbardo’s paradigm) by *not* addressing participants by name, ensuring they would *not* meet the biofeedback subject afterward, and took place in a dimly lit room with white noise. In the individuated conditions the participants wore name tags, were addressed by name, expected to meet victims, the room was brightly lit, and so on.

The aggressive and less aggressive behavioral models were implemented under the guise of an equipment check. A confederate posing as one of the behavior modification participants then administered a series of test shocks to the biofeedback participants, which were high in intensity (aggressive model), or low (low aggression model), or this procedure was omitted (no model). The mean shock intensities subsequently administered by participants formed the main dependent variable and participants also completed a post-session self-report questionnaire designed to measure the deindividuated state. This measure (19 items) comprising two factors labeled as altered experience (e.g., thinking was somewhat altered, felt aroused, etc.) and self-awareness (e.g., felt self-conscious, heightened sense of individual identity, concerned with what others thought of me), and a combination of both (p. 287) of these was used to define the subjective state of deindividuation.

Results showed predicted main effects of both deindividuation and aggression models manipulations and no interactions. Deindividuating cues resulted in stronger shock intensities (but not longer shock durations) than the individuating conditions. Highly aggressive models produced more intense shocks than low, with the no-model condition in between. Both altered experience and self-awareness (negatively) predicted shock intensity, which

Deindividuation

was interpreted as providing evidence that the deindividuated state mediated the aggression.

A further experiment (Prentice-Dunn & Rogers, 1981) obtained similar results with a similar paradigm and deindividuation manipulation and an elaborated measure of self-reported states (but with other factors in the design involving the race of target). The self-report measure included altered states, but the self-awareness factor was now labeled as public self-awareness (albeit with many similar items from the earlier study).

From these studies it is clear that Prentice Dunn and Rogers were in the process of shifting to their more refined analysis of public versus private self awareness, and consequently these studies do not resolve the question of whether the results are due at least in part to the lack of accountability associated with reducing public self-awareness. This interpretation is also consistent with the way in which deindividuation was manipulated (involving reduced identifiability). This issue was more directly addressed in their next publication (Prentice-Dunn & Rogers, 1982), in which they explicitly distinguished the public and private self-awareness dimension and relate these to the accountability and deindividuation routes, respectively. In this experiment they manipulated the variables associated with the two key routes outlined in their two-path model, namely public self-awareness associated with the reduced identifiability and accountability route, and reduced private self-awareness, associated with the deindividuation explanation (cf. Fenigstein et al., 1975). They then present a 2×2 experiment in which they manipulated accountability cues (high vs. low) designed to manipulate public self-awareness, and internal versus external attentional focus designed to manipulate private self-awareness (now defined as the true deindividuation path).

Similar to earlier studies, the cover story described the study as comprising *two* combined experiments, relating to problem solving and memory. The problem-solving experiment allowed the manipulation of deindividuation conditions (e.g., involving distractions to participants, multitasking, etc.), whereas the memory experiment was focused on the effect of “stressful distractions” on memory for the targets (victims), which provided participants the justification to allocate shocks to the victims. Ps (all male) were told that because both studies involved video games, these studies had been combined.

For the critical manipulation (external attentional cues condition designed to reduce private self-awareness and induce the deindividuated state), participants were repeatedly told to focus attention outward and not on themselves, and the study was repeatedly described as concerning group problem solving to enhance group cohesiveness. Ps then solved anagrams collectively in a dimly lit room and while listening to loud rock music (albeit devoid of aggressive lyrics; e.g., Bruce Springsteen). Verbal interaction was encouraged and facilitated by playing color video games. In the internal attentional cues condition, all these features were reversed: Ps were repeatedly instructed to concentrate on their own thoughts and feelings; the anagram and video task (only one game in black and white with less action) were solved individually in a brightly lit room without music.

The accountability cues manipulation was designed to heighten identifiability and public self-awareness. In the high-identifiability/awareness condition, Ps were introduced to the potential targets/victims of the memory experiment and told they would meet them again afterward (i.e., after the shock treatment), whereas in the low-accountability condition they did not meet nor expect to meet the victims later. Public and private self-awareness were measured after critical shock trials, and a retrospective questionnaire (i.e., self-report) was designed to measure any deindividuated state. Once again, this focused on altered experience but also on private self-awareness (linked to the deindividuated state).

In line with predictions, the different components of self-awareness were higher in the conditions where they were manipulated to be high. Moreover, rating of private self-awareness did not differ for the accountability manipulation or public self-awareness for the attentional focus manipulation. In short, the manipulations of the two factors seemed successful in that they had the predicted effects on the two types of self-awareness. Aggression as measured by the shocks (intensity and duration) also had the predicted main effects of manipulations, (p. 288) namely higher levels in low accountability and external attentional focus conditions.

Although these results look promising for the revised deindividuation account, the attempt to show mediation by means of the deindividuated state was less compelling. The attentional focus manipulation had effects on both altered experience and private self-awareness factors, but only altered experience was a reliable predictor of aggression and not the (reduced) private self-awareness (this was blamed on low power). In short, the crucial test of the revised (contemporary) deindividuation theory seemed to fall short in demonstrating the key mediating role for reduced (private) self-awareness. Moreover, although altered experience did seem to play a role, questions remain about what exactly this construct measures (it seems to be a mixed bag of different things) and how central this concept is to the proposed deindividuation process or state. The viability (and validity) of using explicit measures (self-report questionnaire items) to measure a putative absence of self-awareness is also debatable.

In sum, although the authors interpret this research as salvaging the more circumscribed definition of the deindividuation process in terms of reduced private self-awareness, a number of thematic problems remain. Notwithstanding the failure of the crucial mediating role of self-awareness in the process, a number of other features of the research raise questions and point to alternative interpretations of the findings. The manipulations, while high impact, are compound and complex, making it unclear just what process might explain these effects. In particular, the focus on the group in the deindividuation condition and the contrast with individual identity under the inward attentional focus instructions make it unclear whether the role of (individual) responsibility associated with the accountability route has entirely been eliminated from the purer conceptualization of the deindividuation process. Moreover, although the authors were at pains to point out that the additional stimuli such as heavy rock music were devoid of aggressive lyrics, this does not rule out the possibility that the (exclusively male) participants of the sample could have associated rock music with a more male-gendered mindset, priming aggression. A

subsequent study by Prentice-Dunn and Spivey (1986) replicated some of the findings but suffered from some similar methodological questions raised here and below. In short, despite these efforts, the jury seems to still be out on whether the deindividuation process has been demonstrated.

General Problems With Deindividuation: Some Recurring Themes and Questions

We have now considered sufficient deindividuation studies to get a good flavor of the research findings and the paradigms used over several waves of research. By the end of the 1980s, the deindividuation research program seemed to have more or less run its course, with the research program of Prentice-Dunn and Rogers providing the latest statement. However, it was unclear whether this was because there was little left to add, and the phenomenon was convincingly established, or because the claims for the process had remained elusive and unsustained. Whereas the textbooks might suggest the former, emerging critiques in the research literature itself suggested the deindividuation claims remained controversial and disputed. In the emerging era of automatic processes and implicit measurement techniques, one might have hoped that more compelling evidence for the key processes and deindividuated state might have emerged, but this seems not to have materialized.

Looking back at the deindividuation literature, we can discern a number of themes and questions amply illustrated in many of the studies presented here. One key concern is the question of demand characteristics, especially in deploying the Buss aggression machine paradigm used from Zimbardo's work to the research of Prentice-Dunn and Rogers. Despite noble attempts to justify the administration of electric shocks, often by ingenious means (combining experiments on learning, distraction, etc.), too often such instructions can be seen as producing the behavior prompted by the demands of the situation rather than acts of aggression. A key problem here is that aggression is usually defined and understood as the *intention* to do another harm (Averill, 1983), and if any harm done is directed by another, who often takes responsibility for this harm, then it is unclear whether this might not more appropriately be interpreted as conformity or even helping behavior. This criticism is not necessarily eliminated by the argument that it does not explain why participants may choose to shock longer or with greater intensity in key conditions, as this could represent greater willingness to conform or obey.

Indeed, the Milgram obedience to authority paradigm, perhaps the most (in)famous application of the aggression machine, is the elephant in the room that has curiously gone largely unremarked in the deindividuation literature. An exception mentioned earlier is Diener (1980), who tried to explain the difference. Zimbardo did refer to the similarities to (p. 289) the Milgram paradigm but distinguishes between the two: "there was no agent of coercion present to force the girls to act like killers (as in Milgram's obedience studies)." In this case, and unlike his "Frankenstein" moment of epiphany in the Stanford

Deindividuation

Prison experiment where he realizes the power of his role, Zimbardo curiously fails to acknowledge the power of the experimenter in such contexts (cf. Spears & Smith, 2001).

The deindividuation and Milgram paradigms are actually quite similar, but whereas the shocks in the Milgram studies were interpreted as reflecting a conformity to authority (a conscious process as reflected by the great anxiety experienced by many participants), we are asked to believe that giving shocks in the deindividuation paradigm, as requested by the experimenter, reflects a mindless process inaccessible to social norms and social influence. Thus, what appears to be essentially the same phenomenon (albeit save for the clothing, lighting, and group context) is taken as evidence for almost opposite psychological processes.

As noted earlier, the evidence that deindividuation reflects a process without conscious awareness is not at all clear or proven. Indeed, up until the very latest incarnation of the deindividuation process, lack of accountability resulting from anonymity and lack of identifiability were considered central aspects of the deindividuation process, but ones that Prentice-Dunn and Rogers explicitly noted produced an alternative and consciously mediated explanation for antinormative (i.e., aggressive) behavior. However, even in the latest research, classic deindividuation manipulations typically draw attention to the fact that participants are part of a group and will not be individually distinguished (read also: not be held individually accountable) for what the group as a whole does. This is true of most research by Prentice-Dunn and Rogers (as well as previous deindividuation researchers) designed to separate out deindividuation from accountability.

Moreover, focusing on the group versus the individual introduces a further confound between levels of identity (group vs. individual) and any norms that might be associated with the group in particular (and here gender group norms are sometimes in play). As we shall see shortly, the social identity account attaches central relevance to the level of identity (especially group identity) and its associated norms. Rather than treating the group as a vehicle for losing one's identity, it could be an important source of identity itself. Just as we have seen in the earlier research of Zimbardo and others, many of the findings of Diener and Prentice-Dunn and Rogers and their associates could also reflect the role of group processes, in terms of group identities and group norms. For example, the male participants, used in perhaps the critical test of the "two paths" model of Prentice-Dunn and Rogers, could well have taken the heavy rock music and video games as albeit subtle cues to aggression, especially when urged to focus on their group and lose their individual identity and responsibility. It is now time, then, to consider more directly alternative explanations for deindividuation phenomena that are grounded in group identity and group norms.

Postdeindividuation Research: The Social Identity Critique and the SIDE Model

Although R. H. Turner's analysis of crowd behavior in terms of emergent norms (e.g., Turner & Killian, 1972) provided a contrasting group-based explanation of behavior in the crowd, the research of Reicher (1982, 1984, 1987) directly tackled the deindividuation approach from a social identity perspective. Reicher made explicit the problems with the LeBonian legacy underlying deindividuation research, and specifically the contrast of the rational individual with the irrational crowd (and thus group members). Using social identity theory (Tajfel & Turner, 1979), and its sister theory, self-categorization theory (Turner et al., 1987), he argued that immersion in the crowd did not represent a loss of identity or reduced self-awareness but rather a switch from individual identity to group identity and its associated group norms (e.g., Reicher, 1987).

This analysis still had to explain the characteristic effects of anonymity/identity found in the deindividuation studies, however. Here the argument was that one effect of anonymity was somewhat similar to the original argument of Festinger et al., namely that anonymity associated with immersion in the group could reduce the tendency to distinguish or "single out" individuals in the group. Self-categorization theory (Turner, 1982; Turner et al., 1987) argues that such a process, referred to as "depersonalization," can occur to the extent that group identity becomes salient: Individuals become seen less in terms of their unique individuality and more in terms of their shared group characteristics (they effectively become *interchangeable* group members). Clearly such a process of depersonalization would only be exacerbated to the extent that individual differences become harder to perceive (e.g., due to wearing masks and overalls, low (p. 290) lighting, etc., that is, the classic anonymity deindividuation manipulations).

However, it cannot be stressed strongly enough that this depersonalization process is radically different from the deindividuation process, both in terms of its cause and effects. Depersonalization reflects not a *loss* of self, but the presence and salience of a group self. This distinction between individual and group self (based on SCT, SIT) is wholly missing from deindividuation theory, which only considers the individual self and sees the group as an external entity in which the self is submerged and lost.

This traditional view of the group, as external to the self, was consistent with the mainstream view of group processes and social influence at the time that deindividuation theory was developed. This is reflected, for example, in the dual-process model of Deutsch and Gerard (1955), which regarded group influence (normative influence) as compliance, motivated by rewards and punishment from the group ("we go along with the group to get along"), rather than true influence (qua "informational influence"), an altogether more individual process, conforming to the notion of individual rationality.

The self-categorization account of social influence, by contrast, regarded the (in)group as perhaps the ultimate source of socially valid information (Turner, 1991). Because the group is part of self (especially for high identifiers, when salient), group influence is inter-

nal and willed rather than external and imposed, a process referred to as “referent informational influence” (Turner, 1982, 1991). People who categorize themselves as part of the group are likely to take on and internalize (i.e., be influenced by) what they see as normative for the group. This can be inferred “deductively” from knowledge of group norms, but where this is unclear, as it often is in the crowd, it can also be inferred “bottom up,” inductively, from the behavior of others in situ (especially those seen as prototypical for the group; its leaders; see also Postmes, Spears, Lee, & Novak, 2005).

The first attempt to test some of these ideas and apply the self-categorization analysis of group influence to the deindividuation paradigm was conducted in a study by Reicher (1984). This was modeled closely on the classical deindividuation manipulations of group anonymity. A major criticism of the deindividuation approach from the perspective of social identity theorists is that, despite focusing on the group, it neglects the role of group identity and the role of the intergroup context in which crowd behavior typically occurs. Reicher (1982, 1987) has argued that many crowd events that deindividuation research is intended to model (e.g., protests, riots) actually have a clear *intergroup* character. This aspect is often suppressed or denied both in popular media representations of riots, as well as in research that tends to pathologize the crowd and see its behavior as a spontaneous effect of the mass, devoid of context, rather than in reaction to an antagonistic out-group (e.g., the police, the authorities). In the “mad mob” view of the crowd running amok propagated by Le Bon, and perpetuated by deindividuation theory, an analysis of intergroup context and antagonism was not necessary because the problem was the group itself, rather than the intergroup relationship.

Although this antagonistic analysis of the intergroup relation was less central to the current experiment, it is a key theme of the social identity analyses developed later in this chapter. Nevertheless in a departure from much previous deindividuation research, Reicher (1984) used an intergroup context in which science and social science students discussed their attitudes toward vivisection (research on animals) to assess the effects of group immersion and anonymity.

In the experiment, Reicher manipulated group norms in a video presentation such that the science students supported vivisection, whereas social science students were opposed. He predicted that groups would conform to their own group norms, especially when group boundaries and group identity salience was high (by seating the groups at separate tables), and even more so when members were rendered anonymous by virtue of the classical overalls and masks manipulation. Group salience indeed had a strong effect on conformity to the in-group norm, and there was also evidence, albeit only among science students, that under the “deindividuating” conditions of anonymity, their attitudes became more pro-vivisection (in line with the in-group norm) when their group boundaries and identity was salient, but less so when group identity salience was low.

The key point of this first study is that the classical deindividuation manipulations of group immersion and anonymity within the group produced behavior more in line with a group norm. Deindividuation theory, by contrast, would claim that deindividuating condi-

tions would result in the transgression of (generic, prosocial) norms. Thus, using a group influence paradigm, Reicher's study suggests that anonymity within the group may enhance the operation of group norms, rather (p. 291) than simply being mindlessly directed by local cues. Although this paradigm was not focused on the classical aggressive behavior measures, this effect has close parallels to the study of Johnson and Downing (1979), which *did* focus on aggression and showed divergent effects of the deindividuation manipulation based on the cues contained in the clothes (KKK cloaks vs. nurses uniforms), which could also be interpreted as signaling a contextual norm.

Spears, Lea, and Lee (1990) conducted a conceptual replication of the Reicher study in a paradigm more resembling the typical single group context of the classical deindividuation paradigm. Once again, the focus in this study was on the depersonalizing effects of anonymity in the group, enhancing group salience and thus conformity to group norms. Participants were all psychology students. We used the group polarization paradigm, predicting that group attitudes would polarize in the direction of group norms if this group identity was made salient and individuals were anonymous, resulting in increased depersonalization.

A novel twist in this study was that because all communication within the group was via computers, anonymity could be achieved in a naturalistic way by having people located in separate rooms (vs. together in the same room and therefore visible and individuated), thereby also side-stepping any reactive effects of the clothing (e.g., subtle cues, increased self-consciousness). This manipulation was crossed with an identity manipulation in which we emphasized group identity as psychology students or focused on individual identity by stating that the study focused on personality differences. The results were conceptually similar to the interaction for Science students in the Reicher (1984) study. Responses conformed more to the group norm under conditions of anonymity when group identity was salient (depersonalization). Thus, once again the combination of group identity salience and anonymity seems to lead to more group conformity in line with the self-categorization theory analysis but *contra* deindividuation theory. When group members are anonymous and their group identity is salient, they conform to these norms (depersonalization). In short, this reflects a shift to group identity, not a loss of individual identity.

Interestingly, attitudes shifted *away* from group norms when individual identity was made salient under visually anonymous conditions (Spears et al., 1990). This is not surprising, however, because conformity to group norms should not be expected if individual identity is salient. Indeed, we argued this result makes sense to the extent that in this context, where group norms are clear, the most effective and perhaps only way to express individuality is in *contrast* to the group norms.

One shortcoming of both these early tests of the social identity/SIDE account is that they lack evidence for the proposed mediating process in terms of group influence and depersonalization. This is important not least because of my critique that classical and contemporary deindividuation research is severely wanting in this respect. In some subsequent research we have provided further evidence for this group influence process.

In one set of studies, Postmes, Spears, Sakhel, and De Groot (2001) used a surreptitious priming procedure to manipulate the group norm in task groups that used computer-mediated communication (CMC) to make decisions in which group members were identifiable or visually anonymous. Specifically groups were tasked to resolve a policy dilemma about a hospital concerning whether patient care versus management efficiency should receive priority. To manipulate the group norm, we used a scrambled sentence procedure, ostensibly linked to another study, in which either efficiency-oriented or more prosocial concepts were made salient (i.e., these concepts were central to the “solved” sentences comprising scrambled words). Anonymity was manipulated by displaying photos of participants on the screen in the identifiable conditions, or not doing so. Consistent with SIDE predictions, groups tended to conform to the primed norm, and this effect *grew stronger over time*, but only in the anonymous condition.

In a second study we aimed to establish that this effect was caused by true intragroup influence and rule out the possibility that this was just an individually based cognitive priming effect. To this end, we created groups of four people of whom only two were primed (the efficiency prime) with the remaining two group members primed with a neutral prime that had nothing to do with the discussion topic. Once again we found that the impact of the norm was stronger in the anonymous condition, and most important the effect transferred just as strongly from the efficiency-primed to the neutrally primed group members. This research also provided evidence that influence was mediated by group identification, a proxy for group salience.

These studies are also important in showing that the social influence process is not confined to the group-polarization paradigm, where some controversy remains as to whether polarization (p. 292) can be explained by conformity to group norms (i.e., where influence can be more extreme than the group average). Other studies have provided additional evidence for greater group influence and group cohesion being mediated by a depersonalization processes (greater self-categorization and ingroup stereotyping) under conditions of anonymity (Lea, Spears, & De Groot, 2001; Lea, Spears, & Watt, 2007; see Spears & Postmes, 2015).

The study by Lea et al. (2001) is also noteworthy here because it provides an interesting exception to the principle that anonymity increases depersonalization effects (e.g., conformity to group norms, group attraction). This turns out to be relevant in (re)interpreting some anomalous findings of classic deindividuation studies (see later). In this research, we made a distinction between social groups and categories that are visually cued and those that are not. By “visually cued,” we mean that category membership is evident from visually available features, as in the case of gender and “race” for example. In such cases we argued that visibility (rather than anonymity) could further enhance the salience of such social categories by designating and drawing attention to the category itself. This could then increase depersonalization and related group effects (i.e., in contrast to the prediction that anonymity generally increases depersonalization effects in groups that are not visually cued).

We tested this idea in an experiment in which we had groups of four people discuss various topics via computer. Two group members were male and two female (gender: a visually cued category membership) and two were Dutch (i.e., one Dutch male one female, etc.) and two British (nationality: a non-visually cued category). We also varied the discussion topics to render either gender salient (e.g., “Women make better leaders because they are more in touch with their emotions”) or nationality salient (“the British reputation for bad food is justified”). We predicted that anonymity would increase group attraction and group cohesion for the nationality categorization (not visually cued) under conditions of anonymity for high-salience discussion topics. However, for gender (the visually cued categorization) we predicted most group attraction and cohesion on high-salience topics when the discussion group was *mutually visible* (via a computer video link). These predictions were confirmed. Moreover, the attraction and cohesion effects were mediated by self-categorization processes (depersonalization) in both cases.

These studies laid the foundations for a social identity-based analysis of deindividuation effects, and specifically what developed into the social identity model of deindividuation effects (the SIDE model). However, these studies only focus on one aspect of anonymity in the group, namely the tendency to obscure differences between individual group members (or to obscure cues to category membership for visibly cued groups), and thereby influence the salience of the relevant group identity (“depersonalization”). Within the SIDE model this corresponds to just one aspect of anonymity, referred to as “anonymity *of*” group members. This can be contrasted to another key effect of anonymity, also noted in deindividuation theory, namely “anonymity *to*” others, which is relevant to issues of identifiability and accountability (see the second route to aggression in Prentice and Dunn’s latest model described earlier). This effect of anonymity relates not to the effects of making group identity more salient (as in “anonymity *of*”) but in the ability to express aspects of that group identity that might be sanctioned or punished if held to account (i.e., when identifiable).

For Prentice-Dunn and Rogers’s model, this accountability is relevant to behavior that might otherwise be seen as antinormative (e.g., aggression, or taking too many candies in trick or treat) by some general audience (the public; hence, public self-awareness) that might view such behavior with opprobrium. For the SIDE model the relevant audience, with the power of sanction, is typically a powerful out-group or authority. For example, in a crowd context where students are demonstrating for some cause, the out-group with power of sanction might be the university authorities or the police. Following this analysis, being anonymous in the mass may reduce identifiability to such out-groups and encourage behavior that could otherwise be punished (e.g., throwing stones). However, one of several key differences with the deindividuation account is that any such behavior would have to be normative for the group to engage in it. For the SIDE model, a contrast with classical deindividuation theory (i.e., which includes anonymity vs. accountability as a key input variable) is that group norms are not determined by some generic prosocial criterion but will vary widely with the group and the context (e.g., for pacifist groups, violent conduct in the crowd is very unlikely). For classical deindividuation theory, and the accountability route of Prentice-Dunn and Rogers (1989), the (p. 293) accountability effect

is grounded in self-presentation and impression management concerns relating to the individual self and reputation (Leary & Kowalski, 1990; Schlenker & Leary, 1982). It is perhaps then not so surprising that in this context being accountable means avoiding any behavior that might reflect badly on the individual self, and thus avoiding antisocial behavior. However, once the self is defined more broadly, notably also in terms of group identity, the door is opened to group norms that could cut across such generic prosocial behavior, and behavior should also depend on the nature of the audience to which one is accountable (e.g., in-group vs. out-group).

Anonymity is not the only factor that could encourage behavior that is seen as normative for the group but punishable by the out-group; in principle, any situational factor that empowers the in-group relative to the out-group is likely to foster in-group behavior even when it is punishable. The social support of other in-group members in situ is one such factor typical in crowd contexts: Group immersion is only likely to render people somewhat anonymous in the mass, but perhaps even more important is the empowerment provided by “strength in numbers” (indeed, people may not even feel anonymous in relation to other proximal members of the crowd).

Research using the SIDE model has investigated the empowering effects of both anonymity and the copresence of coacting others. Reicher and his colleagues developed a paradigm in which they used the intergroup context of undergraduate students (the in-group) versus staff (the out-group) to test these ideas. They found that students were more likely to endorse behavior seen as punishable by staff, so long as this was normative for their own student group, to the extent that they were anonymous (Reicher & Levine, 1994a) or had the social support of many other students who were copresent in the situation, as opposed to being isolated (Reicher & Levine, 1994b).

To summarize, anonymity in the group can have at least two different kinds of effects on group behavior, according to the SIDE model. Anonymity “of” group members can render them less individually distinguishable, thereby increasing the salience of a group identity that is already salient in situ, by the process of depersonalization. Salience can also be increased for visually cued groups by visibility (Lea et al., 2007). This is referred to as the “cognitive” dimension of SIDE insofar as it affects the salience and impact of (social) identity. Note that if individual identity is salient (see Spears et al., 1990), anonymity will not accentuate group identity and may increase differentiation from the group.

By contrast, anonymity “to” others, and notably to a powerful out-group, can increase the ability to act in line with group norms that could be sanctioned by that out-group. This is referred to as the “strategic dimension” of SIDE, insofar as behavior, reflecting the agenda of a salient group identity, is only acted out if the group members feel they are empowered to do so, and can thus “get away with” behavior that could be punished by the out-group. This is more likely to the extent that group members are anonymous to the out-group (and thus not identifiable and accountable to them). However, other factors, such as the copresence of like-minded group members, may empower the in-group to act without fear of sanction even when they are not protected by the cloak of anonymity.

Once again these ideas as applied to the crowd can also be applied to other contexts in which anonymity and the social support from others in the group might vary. Just as Spears et al. (1990) applied the cognitive dimension of SIDE to the context of computer-mediated communication (CMC), where visual anonymity is a common feature, Spears, Lea, Corneliussen, Postmes, and Ter Haar (2002) applied the rationale of the strategic dimension to this CMC context. For example, in one experiment, they adapted the paradigm of Reicher using staff and students and distinguishing attitude items that were normative for students but either punishable or not punishable by staff (and also punishable items that were also not normative for students, such as cheating on exams).

The experiment then manipulated two factors orthogonally. The psychology student participants were all located in the same room but were either visible to each other or masked by the use of screens between them (and thus visually anonymous). Second, they either had the ability to communicate with each other by means of computer (CMC) or they did not. We predicted that the visual anonymity manipulation would affect group salience of the psychology student identity and that this would increase conformity to nonpunishable group normative items (e.g., partying) compared to the individuated condition. This was confirmed and is in line with the effects of “anonymity *of*” or cognitive dimension of SIDE. However, the availability of CMC was predicted to provide a key channel (p. 294) in which students could communicate support to resist the out-group also on more *punishable* items normative for the in-group (note that copresence was kept constant here). This prediction was also supported and implicates the strategic dimension of SIDE in which channels of support enabled resistance to the out-group.

Returning to the deindividuation literature, the true test of the SIDE model is whether it is able to make sense of earlier deindividuation research. Revisiting the deindividuation studies discussed earlier and viewing them through the prism of the SIDE model is one approach. To an extent, our narrative review already allows this reappraisal. A key difference between the classic deindividuation approach and the SIDE model is that the SIDE model proposes that classic deindividuation effects reflect the operation of conformity to in-group norms, corresponding to salient social identities, rather than antinormative behavior (primarily aggression) brought on by the loss of identity and reduced self-regulation. A recurring theme of our narrative review is that many of the effects arising from the classic deindividuation manipulations of anonymity and group immersion can be reinterpreted as following from such specific group norms or situational demands in the experiment.

As we have already noted, this was essentially the very argument of Johnson and Downing (1979), who noted the similarities between Zimbardo’s classic manipulation and the typical Ku Klux Klan clothing, pointing to the role of normative cues, in addition to the effects of reduced accountability associated with anonymity. However, some of Zimbardo’s actual results present more of a puzzle. Recall that the young women of his first study were less likely to shock victims when identifiable and accountable (see also the results of Singer et al., 1965, for a similar effect). This was as predicted by Zimbardo but, in the second study, Belgians soldiers shocked *more* when identifiable (in their uniforms), rather than

when disguised by anonymity through masks and overalls. A group normative explanation for both these effects is readily available: Participants seem to be acting in line with group norms when identifiable, resulting in less aggression for the women (“young ladies should just not do this kind of thing”) but more aggression for the soldiers (“this is just part of our job”). So far so good. However, recall the cognitive dimension SIDE model predicts more normative behavior (assuming group identity is salient) under *anonymous* conditions. Recall also, however, the exception to this principle for visually cued categories. Both these categories (women and soldiers in uniform) are strongly visually cued. Indeed, it is possible that these group identities were not even salient under anonymous conditions because they were not referred to as part of the experiment. For visually cued categories, visibility should enhance the salience of group norms (cf. Lea et al., 2007), as seems to have happened in these cases.

This narrative reappraisal of the various effects found is possible for a range of classic studies but also remains somewhat speculative and post hoc. In a more systematic approach to this issue, we conducted a meta-analysis in which, inter alia, we tried to test SIDE model predictions against classic and contemporary deindividuation theories in attempting to account for the data (Postmes & Spears, 1998). To this end we analyzed 60 independent studies comprising the deindividuation literature (including unpublished studies). A key step in this analysis was to employ coders to rate the studies for what they would consider situationally normative had they been participants in the various experiments. In this case the use of psychology students, who represented the overwhelming participant population of the original studies, seems entirely appropriate. Studies were also coded for the key manipulations, such as anonymity (to in-group and out-group where relevant), group size, private self-awareness, and public self-awareness and also the key dependent variables (e.g., administration of shocks, stealing or cheating, antinormative attitudes, failure to act prosocially, etc.).

The first key test was for the predicted overall relation between deindividuation manipulations and antinormative behavior. The overall relation was small ($r = .09$) albeit statistically reliable, but the funnel plot shows a wide range of effects from strongly negative to strongly positive, indicating considerable variability and thus the need to consider moderator variables to explain this. Moreover, excluding three studies involving children (with cheating/stealing as the key measures as in the trick-or-treat paradigm) that showed strong support for deindividuation theory rendered the remaining effects with student and other adult samples as not reliable ($r = .06$, ns). A general societal norm could not account for the variance in effects. By contrast the specific situational norms seen as appropriate conduct in the studies (as rated by the coders) was a highly significant positive predictor of (p. 295) deindividuation effects. Group size was the only other moderator that significantly predicted variance, albeit more weakly. Together these accounted for 50 percent of the variance in effects ($R^2 = .50$). In sum, consistent with the SIDE model, but contradicting deindividuation theory, situational norms *positively* predicted deindividuation effects.

We also examined the small subset of studies that tried to address the deindividuated state as a potential mediator of deindividuation effects. Although none of these studies reported full mediational analyses following the recommendations of Baron and Kenny (1986; most predated this influential paper that introduced the era of mediation testing) in 7 of 12 available studies, we were able to compute relevant regressions to test for mediation. These analyses revealed no evidence for significant mediation of deindividuation effects by the measured states: The small effect of manipulations on antinormative behavior in these studies was not reduced by taking into account the mediator. Moreover, distinguishing the type of self-awareness (public self-awareness vs. private self-awareness) outlined in the most contemporary statement of the deindividuation theory (Prentice Dunn & Rogers, 1989) revealed no reliable differences in their relations with the independent or dependent variables. In short, there is no clear evidence that self-awareness mediated any manipulated effects of deindividuation.

Summary and Conclusions

Deindividuation theory occupies a central place in the pantheon, and the textbooks, of social psychology alongside other classic phenomena such as Festinger's dissonance experiments and Milgram's obedience studies. Understanding why people misbehave in the crowd has been high on the political agenda and fired the popular view of the crowd. However, it is perhaps interesting to compare the legacy of deindividuation theory against these two comparison examples. Although deindividuation theory reclaimed some history from Le Bon's account of the crowd, it could be argued, based on the evidence presented here, that time has treated the theory less well than these other classic phenomena. This is not to deny that the tradition of research generated by this theory has been rich and enriching. However, in this chapter I claim that much of the evidence for deindividuation theory's central premise that people lose their sense of self in the crowd, and become more prone to mindless aggression, has not stood up well to closer empirical or theoretical scrutiny. In this chapter I have made a case for a more (group) normative explanation for deindividuation effects, consistent with a social identity explanation of crowd behavior. However, each theory has its own focus and blind spots and I would not claim that this provides the full story of why people behave in crowds as they do. I have also argued that there is an important sense in which the original prediction of deindividuation theory has not been optimally tested, and some of the techniques for tapping unconscious states and processes developed since the heyday of deindividuation research provide hope for better tests of the theory.

On a more conciliatory and integrative note, the basic insight that immersion in the crowd can be intensely arousing and emotional experience is also surely valid (albeit difficult to research in experimental terms) and may well involve unconscious processes. However, the research reviewed here points to the possibility that such processes may be more socially regulated and channeled through group norms, including intergroup emotions, than deindividuation theory would suggest. In this respect this reappraisal locates

deindividuation phenomena squarely within the realm of social influence, reflecting social and group processes, central to the focus of this volume.

References

- Averill, J. R. (1983). Studies on anger and aggression: Implications for theories of emotion. *American Psychologist*, 38, 1145–1160.
- Beaman, A. L., Klentz, B., Diener, E., & Svanum, S. (1979). Self-awareness and transgression in children: Two field studies. *Journal of Personality and Social Psychology*, 37, 1835–1846.
- Cannavale, F. J., Scarr, H. A., & Pepitone, A. (1970). Deindividuation in the small group: Further evidence. *Journal of Personality and Social Psychology*, 16, 141–147.
- Carver, C. S. (1974). Facilitation of aggression through objective self-awareness. *Journal of Experimental Social Psychology*, 10, 365–370.
- Deutsch, M. & Gerard, H. (1955). A study of normative and informational social influences upon individual judgment. *Journal of Abnormal and Social Psychology*, 51, 629–636.
- Diener, E. (1979). Deindividuation, self-awareness, and disinhibition. *Journal of Personality and Social Psychology*, 37, 1160–1171.
- Diener, E. (1980). Deindividuation: The absence of self-awareness and self-regulation in group members. In P. Paulus (Ed.), *The psychology of group influence* (pp. 209–242). Hillsdale, NJ: Erlbaum.
- Diener, E., Dineen, J., Endresen, K., Beaman, A. L., & Fraser, S. C. (1975). Effects of altered responsibility, cognitive set, and modeling on physical aggression and deindividuation. *Journal of Personality and Social Psychology*, 31, 328–337.
- (p. 296) Diener, E., Fraser, S. C., Beaman, A. L., & Kelem, R. T. (1976). Effects of deindividuation variables on stealing among Halloween trick-or-treaters. *Journal of Personality and Social Psychology*, 33, 178–183.
- Diener, E., Lusk, R., DeFour, D., & Flax, R. (1980). Deindividuation: The effects of group size, density, number of observers, and group member similarity on self-consciousness. *Journal of Personality and Social Psychology*, 39, 449–459.
- Diener, E., Westford, K. L., Dineen, J., & Fraser, S. C. (1973). Beat the pacifist: The deindividuating effects of anonymity and group presence. *Proceedings of the 81st Annual Convention of the American Psychological Association*, 8, 221–222.
- Dipboye, R. L. (1977). Alternative approaches to deindividuation. *Psychological Bulletin*, 84, 1057–1075.

Deindividuation

Duval, S., & Wicklund, R. A. (1972). *A theory of objective self-awareness*. New York, NY: Academic Press.

Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975). Public and private self-consciousness: Assessment and theory. *Journal of Consulting and Clinical Psychology*, 43, 522–527.

Festinger, L., Pepitone, A., & Newcombe, T. (1952). Some consequences of deindividuation in a group. *Journal of Abnormal and Social Psychology*, 47, 382–389.

Gergen, K. J., Gergen, M. M., & Barton, W. H. (1973). Deviance in the dark. *Psychology Today*, 7, 129–130.

Johnson, R. D., & Downing, L. L. (1979). Deindividuation and valence of cues: Effects on prosocial and antisocial behavior. *Journal of Personality and Social Psychology*, 37, 1532–1538.

Lea, M., Spears, R., & De Groot, D. (2001). Knowing me, knowing you: Effects of visual anonymity on self-categorization, stereotyping and attraction in computer-mediated groups. *Personality and Social Psychology Bulletin*, 27, 526–537.

Lea, M., Spears, R., & Watt, S. E. (2007). Visibility and anonymity effects on attraction and group cohesiveness. *European Journal of Social Psychology*, 37, 761–773.

Leary, M. R., & Kowalski, R. M. (1990). Impression management: A literature review and 2-component model. *Psychological Bulletin*, 107, 34–47.

Le Bon, G. (1995). *The crowd: A study of the popular mind*. London: Transaction Publishers. (Original work published in 1895).

Lewin, K. (1951). *Field theory in social science; selected theoretical papers*. D. Cartwright (ed.). New York, NY: Harper & Row.

Postmes, T., & Spears, R. (1998). Deindividuation and anti-normative behavior: A meta-analysis. *Psychological Bulletin*, 123, 238–259.

Postmes, T., Spears, R., Lee, A. T., & Novak, R. J. (2005). Individuality and social influence in groups: Inductive and deductive routes to group identity. *Journal of Personality and Social Psychology*, 89, 747–763.

Postmes, T., Spears, R., Sakhel, K., & De Groot, D. (2001). Social influence in computer-mediated groups: The effects of anonymity on social behavior. *Personality and Social Psychology Bulletin*, 27, 1243–1254.

Prentice-Dunn, S., & Rogers, R. W. (1980). Effects of deindividuating situational cues and aggressive models on subjective deindividuation and aggression. *Journal of Personality and Social Psychology*, 39, 104–113.

- Prentice-Dunn, S., & Rogers, R. W. (1982). Effects of public and private self-awareness on deindividuation and aggression. *Journal of Personality and Social Psychology*, 43, 503–513.
- Prentice-Dunn, S., & Rogers, R. W. (1989). Deindividuation and the self-regulation of behavior. In P. Paulus (Ed.), *The psychology of group influence* (2nd ed., pp. 87–109). Hillsdale, NJ: Erlbaum.
- Prentice-Dunn, S., & Spivey, C. B. (1986). Extreme deindividuation in the laboratory: Its magnitude and subjective components. *Personality and Social Psychology Bulletin*, 12, 206–215.
- Reicher, S. D. (1982). The determination of collective behaviour. In H. Tajfel (Ed.), *Social identity and intergroup relations* (pp. 41–83). Cambridge, England: Cambridge University Press.
- Reicher, S. D. (1984). Social influence in the crowd: Attitudinal and behavioural effects of de-individuation in conditions of high and low group salience. Special Issue: Intergroup processes. *British Journal of Social Psychology*, 23, 341–350.
- Reicher, S. D. (1987). Crowd behaviour as social action. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. D. Reicher, & M. S. Wetherell, *Rediscovering the social group: A self-categorization theory* (pp. 171–202). Oxford, England: Blackwell.
- Reicher, S. (2011). “The crowd” century: Reconciling practical success with theoretical failure. *British Journal of Social Psychology*, 35, 535–553.
- Reicher, S., & Levine, M. (1994a). Deindividuation, power relations between groups and the expression of social identity: The effects of visibility to the out-group. *British Journal of Social Psychology*, 33, 145–164.
- Reicher, S., & Levine, M. (1994b). On the consequences of deindividuation manipulations for the strategic communication of self: Identifiability and the presentation of social identity. *European Journal of Social Psychology*, 24, 511–524.
- Reicher, S., Spears, R., & Postmes, T. (1995). A social identity model of deindividuation phenomena. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 6, pp. 161–198). Chichester, England: Wiley.
- Rogers, R. W., & Prentice-Dunn, S. (1981). Deindividuation and anger-mediated interracial aggression: Unmasking regressive racism. *Journal of Personality and Social Psychology*, 41, 63–73.
- Schlenker, B. R., & Leary, M. R., (1982). Audiences’ reactions of self-enhancing, self-denigrating and accurate self-presentations. *Journal of Experimental Social Psychology*, 18, 89–104.

Deindividuation

Singer, J. E., Brush, C. E., & Lublin, S. C. (1965). Some aspects of deindividuation: Identification and conformity. *Journal of Experimental Social Psychology*, 1, 356–378.

Spears, R., & Lea, M. (1994). Panacea or panopticon? The hidden power in computer-mediated communication. *Communication Research*, 21, 427–459.

Spears, R., & Postmes, T. (2015). Group identity, social influence and collective action online: Extensions and applications of the side model. In S. Shyam Sundar (Ed.), *The handbook of psychology of communication* (pp. 23–46). Oxford, England: Wiley-Blackwell.

Spears, R., Lea, M., & Lee, S. (1990). De-individuation and group polarization in computer-mediated communication. *British Journal of Social Psychology*, 29, 121–134.

Spears, R., Lea, M., Corneliussen, R. A., Postmes, T., & Ter Haar, W. (2002). Computer-mediated communication as a channel for social resistance: The strategic side of SIDE. *Small Group Research*, 33, 555–574.

Spears, R., & Smith, H. J. (2001). Experiments as politics. *Political Psychology*, 22, 309–330.

(p. 297) Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–48). Monterey, CA: Brooks/Cole.

Turner, J. C. (1982). Towards a cognitive redefinition of the group. In H. Tajfel (Ed.), *Social identity and intergroup relations* (pp. 15–40). Cambridge, England: Cambridge University Press.

Turner, J. C. (1991). *Social influence*. Milton Keynes: Open University Press.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford: Basil Blackwell.

Turner, R., & Killian, L. M. (1972). *Collective behavior* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Zimbardo, P. G. (1969). The human choice: Individuation, reason and order versus deindividuation, impulse, and chaos. In W. J. Arnold & D. Levine (Eds.), *Nebraska Symposium on Motivation* (pp. 237–307). Lincoln: University of Nebraska Press. (p. 298)

Russell Spears

Department of Social Psychology, University of Groningen