

Both Ends of the Leash

Solo: What every puppy needs from the start

Patricia B. McConnell

I kept waiting for another one. Pip had always had five puppies, and even though the newborn pup I nestled in my arms was huge, he couldn't possibly be the only one of the litter. And so I paced up and down the room, while Pip lay quietly. I stroked her belly; Pip sighed. I begged. Pip slept. After a few hours of this, the vet confirmed my fears. "Solo" was just that, the only member of a litter of one.

I considered this a crisis, and not because I had a long list of puppy buyers. It felt like a crisis because of the many problems dogs I've seen in my office who came from a litter of one – the dogs who growl or snap when you touch them, who become hysterical when they can't get what they want and who go after your face when you try to pick them up. We don't know with certainty that growing up as a single puppy causes serious trouble later on in some dogs, but we have reason for suspicion. Animal behaviorists seem to see a disproportionate number of single-litter pups with serious behavioral problems in our offices. Because of that, I was sick with worry about my own Solo. Would some dear, sweet family be calling me in 10 months to tell me that the puppy I'd bred had bitten their child in the face?

For a few hours that long morning I paced around the room like an expectant mother, hoping against hope for more puppies, cuddling the newborn pup to my chest, trying to decide what to do if my fears were realized. I even considered euthanizing him, given how much trouble I'd seen from single pups. (Just in case you ever find yourself in a similar circumstance, let me advise that cuddling a healthy newborn puppy against your breast while pondering euthanasia is not the road to an objective decision.) Bathed in my own maternal hormones, I did everything but lactate myself. I could no more have euthanized this new little life over something that might happen than I could have cut off my own finger.



Ignorance is bliss they say, and, at the time, I was sorry I didn't have it. I knew far too much about the importance of early development not to worry about my pup. But I'm glad of it now, because peaceful ignorance in the short term can cause serious problems in the long run, and not just for single-litter pups. Single pups are just a subset of a much larger problem: pups who grow up in the absence of a normal amount of stimulation, whether it's from their littermates, their mother or the environment around them. I'll come back to the specific case of Solo in a bit, but right now I want to talk about the issue of early development in general. It's important because, tragically, the profound effects of early experience during the first weeks of development aren't well known by most people, and millions of dogs and the people who love them suffer for it.

A few years ago I was asked by a television station to tour what a reporter described as a "commercial breeding facility." You and I would call it a puppy mill. It could've been worse, although that's not saying much. Each dog was housed with four others in a relatively large pen, where they could all move around and interact. But the room where the brood bitches were kept would break your heart. Every female with a litter was housed in a small hanging, wire cage, where she and her pups lived for six to seven weeks. The mothers were never let out of their tiny cages for all that time, not to stretch their legs, not to breathe real air and most important – as any mother would know – not to get away from their puppies. But the pups...oh, the pups. They were (and are) sold, hundreds of thousands a year, to pet stores, where uninformed buyers take home damaged animals who couldn't have had a worse start in life.

It's bad enough that the pups all learn to urinate and defecate where they live, and that their only toys are their own feces. That in itself can doom their owners to a life of unsuccessful house training, but it's only one of the potential problems. The most serious problem is related to a biological phenomenon that every puppy buyer needs to know about. It's simple, really: The brains of puppies aren't fully developed at birth, and what happens in the first few weeks of life affects how puppies' adult brains are structured. Puppies (and humans for that matter) who grow up in sterile environments have brains with relatively few connections between brain cells. Puppies who grow up in enriched environments, with lots of sensory inputs, develop into adults with a veritable spider web of connections between neurons. Those connections, called "dendritic branches," are formed early in life, and affect how many brain cells are actually used later in life.

It turns out that animals with the richest tapestry of neural connections do markedly better. "Sterile-raised" animals don't cope as well with stressors, even minor ones like meeting new individuals, adapting to a new environment or solving novel problems. Puppies who begin life in two-by-three-foot metal cages aren't exactly overwhelmed with a variety of sensory inputs, and so from the word go they are disabled, shaped by forces beyond their control into individuals with structurally deficient brains. That doesn't mean that every puppy who comes out of a puppy mill or a pet store is doomed to a life of neuroses. Canine behavior is a complicated and rich phenomenon, and there are always individuals who can shine after even the grimmest of beginnings. But many can't conquer such an impoverished start, and they and their owners will suffer for it for years to come.

The tragedy of puppy mills is well known to many of us, although it continues to shock me how successful they are. What's less known is that it's not just puppies from puppy mills who suffer from a lack of sensory stimulation in early development. Our American obsession with cleanliness and our ignorance about the consequences of environmental sterility have damaged many other puppies as well. I've worked with dogs from well-known "responsible" breeders who raised their pups in pristine cleanliness, and complete and utter environmental impoverishment. I'm not saying

cleanliness isn't a virtue; it is. But an environment isn't just "clean" or "dirty," it's not a digital "yes/no" condition. There's a wide continuum between extremely dirty and surgically sterile, and in the case of healthy puppies, the Greeks were right: "everything in moderation." Puppies who are raised in spanking-clean kennels but who never walk on anything but cement aren't getting as good a start in life as pups who also romped on grass, gravel, carpet and pavement. Starting at three weeks of age, pups need to experience change – the feel of different textures under their feet; the sounds of television, phones, birds singing, children crying, thunder rolling. They need to meet people of all descriptions: big ones, small ones, old ones, young ones, dark ones, light ones and ones with huge floppy hats.

The lack of an enriched, variable environment is a surprisingly common problem. Most people know that dogs need to be "socialized" during their sensitive period of social development between five and 12 weeks of age. But far fewer know that puppies, long before they go to their new homes, need a complex, changing environment in their first weeks of life to develop into the "best that they can be." It always breaks my heart to meet these dogs, the ones raised in a wire-and-cement kennel with little opportunity to grow and stretch their brains, not getting what they needed when they needed it. You can help them, but you can't go back to that critical, special period in life when their brains were ready and waiting to learn to cope with change.

I don't want to oversimplify this. It's absolutely true that exposing pups to lots of new people, to romping in grassy fields at four weeks of age and taking car rides at six weeks, creates a risk of disease transmission. It's also true that you can provide too much of a good thing. Too much stimulation at an early age can backfire on you and end up harming your puppy. Most behaviorists agree that in this case, compromise is the best course of action. I'd never take a five-week-old puppy to a busy dog park, potentially full of parvovirus particles and parasites (not to mention the problem of the pup being overwhelmed by the other dogs). But I'd take him to my friend's gravel-and-grass backyard in a minute, and let him meet her sweet, vaccinated, puppy-loving Cocker Spaniel. I'd take him in the car to the drive-up window at the bank, where he can learn to love strangers because they come with doggy treats. And

I took Solo up the hill at four-and-a-half weeks of age, stumbling over tall grasses, little fat legs pumping to keep up with five grown-up dogs, where he could sniff gopher holds and eat sheep poop and God only knows what else while his brain processed the richness of earth smells and bird song and meadow mouse scents.

Solo had a different kind of environmental deprivation than pups raised in sterile conditions, but like all dogs, what happened in his first weeks of life was critical to his happiness later on. I'm thankful that Solo turned out to be fine; he's the healthy, well-adjusted pet of a woman who adores him. I don't know why he's doing so well, but I do know that I tried a number of things designed to avoid the problems that I've seen in my office. Many solo puppies have had two major behavioral problems: a lack of frustration tolerance and an aggressive response to being touched, especially if touched by surprise. As I thought about it while pacing the floor the morning of Solo's birth, those problems made sense. Single pups inherently develop without the constant physical stimulation of littermates, and without the frustration of competing for a turn at the milk bar.

People who raise puppies know that from day one, nursing time isn't all sweetness and light. Puppies mew and paw and scratch in an attempt to find a nipple, and as often as not, get shoved off by a pushy littermate who wants one too. But solo pups have it all to themselves. They have constant access to a veritable cornucopia of food, readily available from eight or 10 nipples – count them! – any time they want. So I hypothesized that solo pups overreact to touch because they receive so little in the early weeks of development, and that they can't handle frustration because they never experienced it during a critical time of development.

With that in mind, I handled Solo as often as I could, touching him while he slept, nudging him over on his back while he lay on his side. I also tortured him – at least that's what it felt like. I bought a stuffed animal the size of a puppy, and five times a day I waited until he began to search for milk, and using my surrogate littermate, pushed him aside. Sometimes I'd wait until he had sealed his tongue around the nipple and he was just getting his first squirt of milk – then I'd push him off. He'd fuss and squeal, and I'd

silently apologize while Pip looked up at me in quiet confusion. Solo would paw his way back, and eventually be rewarded for his stamina.

It seemed to work. Solo displays no more frustration intolerance than any other dog last I saw him, and appears a well-adjusted individual. He did growl at five weeks of age when I picked him up, and my heart sank with worry that my worst fears would come true. But he responded beautifully to classical counter-conditioning – I simply touched him lightly and then immediately gave him a treat, gradually working up to firmer touches, even lifting him up before he got his treat. In four more weeks he couldn't wait to be touched, and eventually I placed him with a single woman who seemed like the perfect owner. They've been best friends ever since.

Being best friends is what it's all about, and dogs need us to do what good friends do. We need to take a stand for them, to step up to the plate to educate, advocate and fight for a normal, healthy development for every little pup born. Puppy mills, and yes, some dog-loving experienced breeders, need to understand and acknowledge that the first weeks of development can mean the difference between a good life and a troubled one. So go give your dog a kiss, and then call your local pet store and ask them not to sell puppies (or kittens). Find out if there's a puppy mill in your area and start making waves. Your dog may be getting organic chicken and acupuncture, but millions of dogs in this country aren't getting their most basic needs met, and the effects are permanent. If you're like me, one of your own basic needs is to spend time with a dog to be truly happy. Right now, dogs need us too. Our dogs don't let us down very often; it'd be good if we could say the same for our own species, wouldn't it?

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